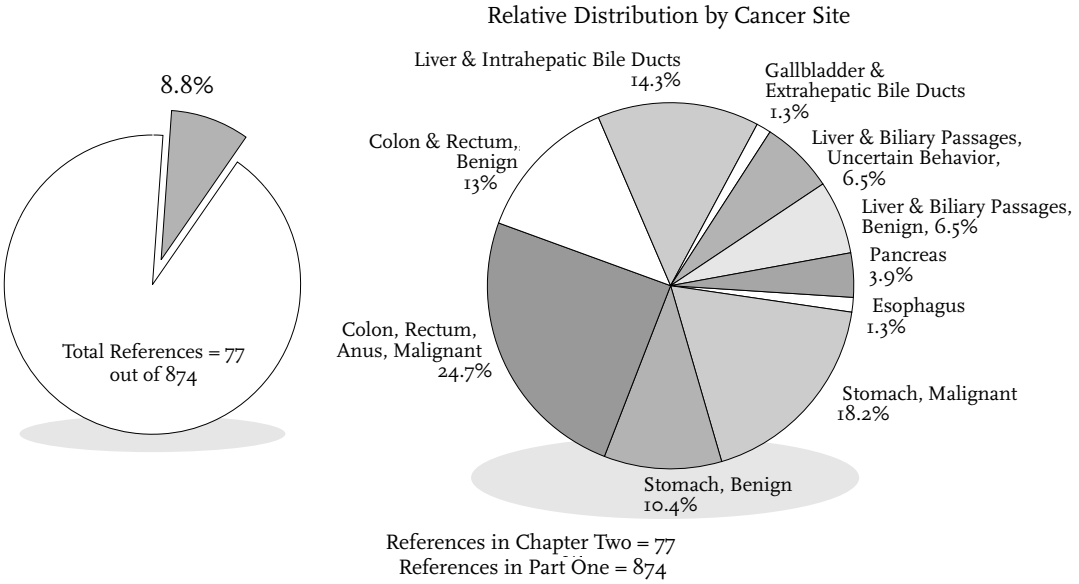
2. Remission of Neoplasms of Digestive Organs and Peritoneum

Remission of Neoplasms of Digestive Organs and Peritoneum



Cancers of digestive organs and peritoneum account for 20.8% of the cases of cancer reported by participating tumor registries to the SEER (Surveillance, Epidemiology, and End Results) Program between 1983 to 1987. The incidence of individual digestive organ cancers is 1% esophageal; 2.3% stomach; 14.1% colorectal; 0.7% liver and intrahepatic bile ducts; and 2.6% pancreatic. The relative five-year survival rates (%) for the years 1974-1986 for gastrointestinal cancers are 6% esophageal; 16% stomach; 53% colorectal; 4% liver and intrahepatic; 10% gallbladder; and 3% pancreatic cancers. Mortality data show that cancers of digestive organs and peritoneum account for 24.7% of the mortality cases reported to the SEER Program between 1983 and 1987. Of that percentage, esophageal cancer accounts for 1.9% of the mortality cases; stomach, 3.4%; colon, 10.9%; rectum, 2.0%; liver and intrahepatic bile ducts, 1.4%; and pancreatic cancer, 5.1% (Cancer Statistics Review 1973-1987, published by the National Cancer Institute).

Of the 77 references in this chapter, 33 are annotated with summaries. Some annotated references also contain 1 or more case reports. Twenty-one refer to malignant neoplasms and 12 to benign neoplasms and neoplasms whose behavior is uncertain. There are 44 supplemental references provided for additional reading and research. The full text of 33 case reports is presented.

A summary of the chapter contents is presented in Table One. A comparative analysis of cases reported in previous literature reviews is presented in Table Two.

Table One: References and Case Reports in Chapter Two†

Tumor Site	References (number)	Cases (number)	Cases (%)
Esophagus	1	1	0.4%
Stomach (malignant)	14	6	2.3%
Stomach (benign)	8	4	1.5%
Colon/Rectum (malignant)	19	6	2.3%
Colon/Rectum (benign)	10	2	0.8%
Liver (malignant)	11	4	1.5%
Liver (uncertain)	5	3	1.2%
Liver (benign)	5	3	1.2%
Pancreas	3	3	1.2%
Gallbladder	1	1	0.4%
Totals	77	33	12.8%

† Total number of case reports in Part One is 258.

Table Two: Comparison Between Other Major Literature Reviews of Cases of Spontaneous Regression of Neoplasms of Digestive Organs and Peritoneum

Tumor Site	Rohdenburg (1918) (N =185)	Fauvet (1960) (N=192)	Boyd (1966) (N=97)	Everson (1966) (N=182)	Challis (1990) (N=505)
Stomach (malignant)	8	16	3	4	10
Colon/Rectum (malignant)	7	10	3	8	10
Liver (malignant)	1	1	2	2	10
Liver (uncertain)	0	0	0	0	2
Pancreas	0	1	0	1	3
Gallbladder	2	1	1	0	0
Totals	18	29	9	15	35

Malignant Neoplasms of the Esophagus

Spontaneous Regression of Esophageal Carcinoma with Pulmonary Metastases: Case Report

Ohwada S; Miyamoto Y; Fujii T; Oyama T; Joshita T; Izuo M
Japanese Journal of Clinical Oncology 20(2): Jun 1990; 193-198

Extracted Summary

The first description of a spontaneous regression of a primary esophageal carcinoma with progressive growth of multiple pulmonary metastases is reported, and the possible cause of the spontaneous regression is discussed briefly with reference to T cell subsets. A 78-year-old Japanese man underwent an esophageal bypass with gastric substitution for carcinoma of the middle to lower third of the intrathoracic esophagus with aortic invasion. Two months after the operation, multiple pulmonary metastases were documented and were seen to progress gradually over the next six months. Seven months later, all the secondary lesions underwent a complete spontaneous regression. The primary lesion also regressed, but did not disappear completely. It was not possible to establish whether a change in T cell subsets was the cause or an effect of the regression.

Selected Case Report

A 78-year-old Japanese man was admitted to the National Numata Hospital on January 9, 1987, suffering chiefly from dysphagia. He had a history of a left cerebral infarction with residual left hemiplegia. His general medical condition was good, except for the neurological findings. Routine laboratory investigations gave normal results. The serum squamous cell carcinoma-related antigen (SCC) level (normal <1.5 nanograms/ml) was elevated to 56 nanograms/ml. An esophageal barium radiography showed a long area of stenosis and a filling defect at the middle to lower third of the intrathoracic esophagus. An esophageal endoscopy showed a tumor, with ulceration causing the stenosis, which was a Borrmann 3 type carcinoma, and histologic examination of a biopsy specimen disclosed a well-differentiated squamous cell carcinoma. Computed tomography of the thorax showed thickening of the esophageal wall and invasion to the descending thoracic aorta, but with no definite mediastinal lymphadenopathy. On April 21, 1987, an esophageal bypass with gastric substitution via the substernal route was performed, and a feeding gastrostomy created. An X-ray of the thorax taken preoperatively revealed no pulmonary lesions. Two months later, on June 26, multiple pulmonary metastases were discovered, and their progressive growth over the subsequent six months was documented. Beginning in January 1988, however, a spontaneous regression of the metastases was noted and, by April 1, they had disappeared completely. A repeat barium radiography of the esophagus through the drainage gastrostomy tube showed that the esophageal tumor had also regressed, showing a lower grade of stenosis and a reduction in size compared to its preoperative state. On fiberoptic endoscopy, the lesion appeared as only a small and superficial depression, 1.0 centimeter in diameter. The serum SCC levels had become elevated to 96 nanograms/ml during the tumor's progression and were reduced to 4.5 nanograms/ml following its regression. During the interval of tumor regression, the patient sometimes had a high temperature (over 38°C) and was treated with some antibiotics. The patient received therapy neither with anticancer nor with non-specific immunomodulators. The patient was given Clinimeal (Eisai Co., Ltd.) alone: an elementary diet. The lymphocyte mitogenic responses to Phytohemagglutinin (PHA) were 210 S.I. (stimulation index) and 158 S.I. (normal >295 S.I.), and Concanavalin A (Con A) values were 155 S.I. and 110 S.I. (normal >221 S.I.). There were increases in the absolute numbers of CD8+ CD11-, CD8+ CD11+ and CD8- CD11+ cells compared with those for patients with nonresectably advanced and metastatic cancer in the digestive organs. Upon completion of the regression, the absolute numbers and percentages of the CD8+ CD11- and CD8- CD11+ cells had increased to 1680 (58.5%) and 864 (30.3%) cells/mm^3, respectively, whereas the absolute number of CD8+ CD11+ cells had not changed although the percentage had decreased to 18.6. The patient is well and at home, and his regression has lasted one year and two months to date: June 1989.

Malignant Neoplasms of the Stomach

Carcinoma Following Pregnancy with Spontaneous Cure

Levine W; Weiner S

American Journal of Obstetrics and Gynecology 49: 1945; 778-782

Extracted Summary

Diffuse carcinoma of the peritoneum and mesentery is generally metastatic. It is usually inoperable because of its extensive spread and involvement of adjacent organs. A case is reported in which multiple metastases in the abdominal cavity were found 4 months postpartum. Three years postoperative the patient was pregnant again. In view of her history, the surgical, medical, and pathological departments advised termination of the pregnancy by abdominal hysterotomy and sterilization. Upon operation no evidence of carcinomatous tissue was found.

Selected Case Report

A 34-year-old primipara, G. M., was delivered spontaneously after a short labor, on November 22, 1939. Her pregnancy had been normal in every respect. Her previous medical history was negative except for an appendectomy in 1932. Her immediate postpartum course was uneventful, and she was discharged from the hospital on the tenth day.

Soon after her discharge from the hospital she began to complain of colicky pains in the upper abdomen, weakness, fatigue, epigastric fullness, nausea and vomiting, anorexia, frequency of urination, and loss of weight. These symptoms became gradually worse, and on repeated examinations the only physical finding was a small, tender pedunculated fibroid attached posteriorly to the uterus. She was advised to remain under observation because of the above symptoms and findings. She was seen again three and a half months later, still complaining of the above symptoms. In addition to the pelvic findings described above, there was a large, tender, fixed mass in the mid abdomen, not connected with the pelvic tumor. The liver was also enlarged and tender.

X-ray study of the gastrointestinal tract at that time revealed no evidence of gastric or duodenal ulcer or a new growth. A mass density in the right upper quadrant, which was extracolic and extrarenal, was suggested.

She was admitted to the hospital four months postpartum, and upon laparotomy it was found that there was free hemorrhagic fluid in the peritoneal cavity. The liver was enlarged and nodular and the seat of numerous metastatic nodules. There were multiple implants on the peritoneum and in the omentum. There was also a large, firm mass involving the gastrocolic omentum and the transverse colon. It was not possible to say whether this mass arose from the lumen of the gut. The uterus was the seat of two pedunculated fibroids, and both ovaries were studded with peritoneal implants. Several implants were taken for biopsy. An attempt was made to take a liver biopsy, but was abandoned because of extensive friability and marked bleeding.

Microscopic sections revealed lymph nodal tissue replaced by masses of atypical and hypertrophied tall cuboidal or polygonal epithelial cells which in places form suggestions of glands, and occasionally contained small mucus like globules. These cells had large hyperchromatic vesicular nuclei and mitotic figures of both regular and irregular types. Pathologic diagnosis was metastatic adenocarcinoma.

The immediate postoperative course was very stormy. She was markedly distended and vomited; the temperature was persistently elevated, the pulse poor, and outlook grave. After several days the distention diminished, the temperature declined, food was tolerated, and she appeared much better. The abdominal wound healed by primary union and she was discharged on the fourteenth postoperative day.

When seen two weeks later she complained of headaches, weakness, vomiting, and exhaustion. The abdomen was distended, tender, and presented evidence of free fluid in the peritoneal cavity. The liver was palpable, and multiple masses were still felt in the abdomen. A few weeks later the spasticity and tenderness in the upper abdomen still persisted but the masses were not felt, and the liver enlargement receded. She still complained of some pain in the upper abdomen, but vomiting had ceased, her appetite had improved, and she had gained 4 pounds.

Six weeks later she stated she had menstruated for

the first time since her delivery. She felt nervous, had slight abdominal pain, and had gained eleven pounds. There was still slight tenderness in the upper abdomen, but no masses were palpable. The liver could not be felt. For the next year she remained under observation and continually showed improvement. Her weight, although remaining stationary, was normal; her menses were regular, and she had no complaints.

In April 1943, three years postoperative, she was found to be pregnant, but because of her previous history and findings, she was admitted to the hospital for study and consultation. The surgical, medical, and pathological departments were consulted. In view of the previous history and operative findings, they all advised termination of the pregnancy by abdominal hysterotomy and sterilization.

At operation the liver edge was found to be regular and smooth. There were a few soft adhesions between the omentum and the parietal peritoneum. There were no implants on the peritoneum, omentum, or other abdominal viscera. The uterus was enlarged, bluish, soft, with several pedunculated fibroids on its posterior wall and a larger degenerated fibroid on the left side. There were, in addition, numerous subperitoneal elevations on the fundus of the uterus and suggestions of peritoneal implants. Both ovaries and tubes were normal. Because of these subperitoneal elevations, a total hysterectomy with bilateral salpingo-oophorectomy was performed. Small pieces of omentum were removed for study. Microscopic study of the uterus, tubes, ovaries, and sections of omentum revealed no evidence of carcinomatous degeneration. The postoperative course was smooth and uneventful. The patient was discharged on the fourteenth postoperative day.

She has since been seen on several occasions and except for slight menopausal symptoms has no other complaints. At the present time there is no evidence of recurrence of the neoplastic lesion found four and a half years ago at the first operation.

Spontaneous Regression of Cancer

Nelson DH

Clinical Radiology 13: 1962; 138-140

Extracted Summary

Many difficulties may be encountered when collecting together a series of patients illustrating the spontaneous regression of cancer. The passage of years is required before a remission is suspected, and, all too often, by then the patient's name cannot be recalled or the original notes may have been destroyed, and the diagnosis is finally dismissed as incorrect.

In this small series of cases, the criteria for inclusion are as follows: 1. There is histological proof of the malignant nature of the tumour and the sections are still available. The diagnosis has been confirmed independently by at least three experienced pathologists. 2. Treatment has been totally lacking, or palliative. 3. Subsequent surgery or post-mortem examination showed no trace of the original disease, or the patient survived for more than five years with no clinical signs of activity.

Five patients are described, each showing spontaneous regression of a cancer. It is suggested that this occurrence is by no means rare, and that such cases are often lost to sight and forgotten.

Selected Case Reports

Case 1. A man aged forty developed obstructive jaundice in February 1956. The illness resolved after fourteen days and a diagnosis of infectious hepatitis was made. Seven weeks later an attack of epigastric pain was followed by a recurrence of the obstructive jaundice. On 24th April, a laparotomy showed a hard mass six inches in diameter between the stomach and duodenum, fixed to neighboring organs and to the liver. No attempt was made to remove the tumour but a biopsy was taken. This showed a highly cellular undifferentiated malignant growth, with many atypical mitoses. By September he had regained his health and has remained perfectly well in June 1961.

Case 5. A girl aged ten was admitted in April 1950, for investigation of nine months chronic ill health. Her symptoms included anorexia, weight loss, lethargy, joint and muscle pains and severe generalized pruritus. Investigations showed no definite abnormality apart from an anaemia and a constant leukocytosis. Towards the end of May a central mass was discovered arising up from the lower abdomen which was palpable on rectal examination.

A laparotomy was carried out in June. This revealed a large vascular retroperitoneal tumour rising out of the pelvis over the sacral promontory. A biopsy was performed. Microscopical examination indicated either a

sarcoma arising in the nervous tissue, or a fibrosarcoma. After the operation, the patient's temperature remained raised, and transfusions were needed for her anaemia. Radiotherapy was considered not to be indicated, and her parents being informed that she had an inoperable cancer took her home.

Ten years later it was not possible to interview the patient as she was on her honeymoon.

Spontaneous Regression of Hepatic Metastases from Gastric Carcinoma

Rosenberg SA; Fox E; Churchill WH

Cancer 29(2): Feb 1972; 472-474

Extracted Summary

A patient with gastric carcinoma had hepatic metastases proven by biopsy. He survived for 12 years in the absence of therapy, at which time laparotomy revealed a total regression of the tumor tissue in his liver. Though this phenomenon is extremely rare, the "spontaneous" regression of hepatic metastases from gastric carcinoma can occur.

Selected Case Report

A 51-year-old Caucasian man was admitted to the hospital, in July 1956, with malaise, weight loss, and epigastric distress. His past history was one of excellent health. He had been a heavy drinker consuming from 3 to 4 fifths of whiskey each week.

The physical examination was normal except for hepatomegaly. Upper gastrointestinal x-rays revealed a mass at the gastric antrum. Gallbladder series, barium enema, and liver function tests were normal.

At exploratory laparotomy, the patient was found to have a "fist-sized" tumor of the antrum of the stomach extending about half way up the lesser curvature. No direct tumor invasion outside the stomach was evident. Several enlarged hard lymph nodes were palpated in the lesser omentum. Three nodules were seen in the liver, ranging from 1 to 4 centimeters in diameter. No other tumor metastases were evident in the abdominal cavity. A palliative subtotal gastrectomy with a Billroth II anastomosis was performed, and approximately 60% of the stomach was removed. A biopsy of one of the hepatic nodules was also performed.

Microscopic examination of the surgical specimen showed that it was an undifferentiated adenocarcinoma of the stomach. The margins and the serosal surfaces of the specimen and excised lymph nodes were free of tumor. Lymphatic vessels showed tumor invasion. The tumor consisted of pleomorphic cells with large variable hyperchromatic nuclei with occasional acinar arrangements. Mitoses were frequent. Gastric mucosa around the tumor contained dense infiltration with lymphocytes and plasma cells with smaller numbers of eosinophils. The biopsy of one of the 3 liver nodules showed liver parenchyma partly replaced by tumor tissue similar to that in the stomach. On the basis of these pathologic findings, the primary tumor was thought to be totally excised but hepatic metastases remained.

The patient did well until the 10th postoperative day when he developed progressively severe left upper abdominal tenderness, fever, and leukocytosis. On the 13th postoperative day, an exploratory laparotomy was performed. Purulent material was found throughout the abdomen, although the greatest localization of the inflammation appeared to be in the lesser omental sac near the gastric anastomosis. No perforation could be found, and no discrete abscess could be located. Culture of the abdominal pus revealed alpha streptococcus. Following drainage of the peritoneal cavity, his recovery was uneventful.

By 5 months after discharge, the patient had gained 20 pounds, was entirely asymptomatic, and had returned to work. He has been seen on repeated occasions between 1956 and 1968, and has continued to do well. In 1959, 3 years after surgery, he was noted to have a 1.5 x 1.5 centimeter mobile firm mass present in the left superior cervical region. Clinically, it was thought to be a metastasis, and no diagnostic or therapeutic efforts were instituted. He was next seen 2 years later, and by that time the cervical mass had disappeared.

In 1968, 12 years after his initial surgery, he underwent a cholecystectomy for cholelithiasis. No evidence of tumor was seen on lung, bone, or upper gastrointestinal x-rays. At the time of this operation, no evidence of tumor or other masses could be found in the abdomen. The liver was carefully visualized, and no nodules or other abnormalities were seen. No adenopathy could be palpated. Dense adhesions prevented careful inspection of the gastric resection site. He recovered from the operation without incident.

At the time of his cholecystectomy he was also noted to have a 1 x 3 centimeter indurated area on the right inferior surface of the tongue extending slightly onto the floor of the mouth. Biopsy of the lesion revealed malignant, invasive, well-differentiated squamous carcinoma with heavy chronic inflammatory infiltrate. Electrocoagulation of the tumor was performed and was well tolerated. When last seen in October 1968, the patient was doing well with no evidence of residual tumor from either the stomach or tongue.

A Case of Spontaneous Dislodging of Polyp Cancer

Nishikawa T; Hisamatsu K; Takasato Y; Mugikura M; Saito T
Stomach and Intestine (I To Cho) 9(4): 1974; 527-531

Extracted Summary

An interesting case of spontaneous disappearance of polyp cancer giving an impression of spontaneous healing was experienced and was found fatal on account of liver metastasis. The patient, a 71-year-old male, was diagnosed as gastric polyp by survey examination in September 1969. He attended our Institute for further investigation, and the first detailed study revealed a pedunculated polyp on the anterior wall near the mid-corpus. Gastric biopsy showed coexistence of benign adenomatous polyp and adenocarcinoma, and thus histopathological diagnosis of polyp cancer was established. Since the patient refused surgical treatment, follow-up observation was thereafter performed. Gastrocamera and biopsy were performed 6 months later with the results the same as the previous findings. But 4 months later, gastrocamera examination revealed no evidence of the lesion. Biopsy was performed twice from the previous location of the lesion and the results were both negative for cancer. In August 1972, or 2 years after disappearance of the lesion, the patient developed fever, anemia and anorexia. He died from palpable tumor in the liver and ascites. Among 63 cases of benign gastric polyp experienced by us so far, there were 3 cases showing its disappearance. In the present paper, several factors concerning this spontaneous healing process are discussed as well.

Spontaneous Regression of Gastric Reticulum Cell Sarcoma

Tietjen GW; McAllister FF
New York State Journal of Medicine 74(4): April 1974; 680-683

Extracted Summary

A case is reported of a sixty-year-old female who was alive, well, and apparently free of tumor five years after the diagnosis of reticulum cell sarcoma of gastric origin was made. She received no therapy other than gastroenterostomy.

We believe this is the first report of spontaneous regression of a malignant lymphomatous tumor of the stomach. A review of some pertinent literature is presented

Selected Case Report

A sixty-year-old Puerto Rican female came to the clinic with a one month history of epigastric pain, a 20 pound weight loss, and nausea. Abdominal examination revealed a fixed, slightly tender, 5 centimeter round mass in the right upper quadrant. Laboratory data revealed a hematocrit of 35%, normal liver function tests, and normal routine blood chemistry. An upper gastrointestinal examination revealed a large, irregular, lobulated mass in the antrum with ulceration on the greater curvature, radiologically interpreted as gastric carcinoma.

At laparotomy on July 14, 1965, there was a large, firm tumor in the antrum which extended distally into the duodenum 6 centimeters distal to the pylorus and extended into the transverse mesocolon. The tumor was considered unresectable. A biopsy of the tumor was taken where it extended into the mesocolon, and the frozen section diagnosis was undifferentiated carcinoma. A gastroenterostomy was constructed. The permanent slides were also interpreted as showing undifferentiated carcinoma, probably of gastric origin. The patient made an uneventful recovery and was discharged. It was planned to employ radiotherapy and/or chemotherapy as indicated by the patient's clinical course.

In 1968, the patient was well, had no weight loss and was asymptomatic. Because of the unusual course, the pathologic slides were reviewed by the senior members of the department of clinical pathology. The biopsy specimen was infiltrated with cords and strands of necrotic cells with enlarged, hyperchromatic nuclei with a coarse chromatin network. The mitotic rate was brisk. An epithelial type of reticulum network was revealed on Laidlaw silver stain. The diagnosis at the time was changed to reticulum cell sarcoma, gastric orgin.

Because of her benign clinical course for two years, no

therapy was given. X-ray film examination of the stomach in 1968 revealed some stiffness in the distal antrum, but no mass defect. Repeat x-ray films in 1970 and 1971 showed essentially normal findings, with most of the contrast material emptying by way of the duodenum. In March 1971, the patient remained asymptomatic. Physical examination, hemoglobin, liver function tests, skeletal survey, barium enema, intravenous pyelography, and gastroscopy, revealed normal findings.

Spontaneous Regression of Disseminated Gastric Leiomyoblastoma: A 29-Year Follow-Up

Payson BA; Vasilas A; Gerstmann KE

American Journal of Gastroenterology 75(4): Apr 1981; 294-298

Extracted Summary

Spontaneous regression of tumor metastases is a rare phenomenon. We report a patient with gastric leiomyoblastoma with extensive peritoneal metastases who had an incomplete excision of the primary. He has survived 29 years since the diagnosis was first documented. He received no adjuvant therapy.

The author speculates on the cause of this regression. First, this type of tumor is somewhere between leiomyoma and leiomyosarcoma in terms of its malignancy, so it is possible that a tumor with a limited malignancy potential can, after an aggressive stage, reverse itself either spontaneously or after a large portion of the tumor mass is removed. The author suggests a second possible cause of the observed regression could be an increase in immunological resistance. Possibly, the operative trauma and postoperative infection in this case might be contributing factors.

Selected Case Report

A 26-year-old black male was admitted to Beekman Downtown Hospital on 19 December 1951, with painless hematemesis one hour earlier. He had been having some epigastric distress for several months and a diagnosis of peptic ulcer or duodenitis was entertained. While in the hospital, bleeding recurred on several occasions requiring blood replacement.

While scheduled for a gastrointestinal series, he had massive upper gastrointestinal bleeding which necessitated immediate exploration. On opening the peritoneum, it was noted that the gastrohepatic ligament, the entire greater omentum and parietal peritoneum were studded with distinct nodules varying from a few millimeters to 1 centimeter in size suggestive of metastatic implants. On the greater curvature of the stomach near the splenic attachment a 2 centimeter mass was encountered. It was excised for biopsy and the gastric defect closed. An omental implant was also excised.

The pathology slides were reviewed in 1951 by Dr. Arthur Purdy Stout. His report reads as follows:

"Microscopic: Sections of the stomach nodule show that it is not a lymph node but a tumor which involves in part the outer coat of the muscularis of the stomach. It is made up of cells, most of which are polygonal but some are spindle-shaped and have a strong resemblance to smooth muscle cells. Practically no mitoses are seen and the tumor cells are not anaplastic.

"Sections from the omental nodule are similar to those in the stomach except that there are very few spindle shaped cells. No mitoses are seen.

"I think these tumors are almost certainly leiomyosarcomas and it is quite possible that the severe hemorrhages may be associated with tumor growth. The case is very remarkable because ordinarily this type of tumor without mitoses and with this appearance does not metastasize. It is difficult, however, to believe that the multiple peritoneal nodules can be anything else but metastases."

There was intermittent bleeding postoperatively and gastroscopy was performed which revealed that the rugae on the greater curvature of the fundus were enlarged and did not disappear with air insufflation. On the posterior wall of the fundus an area of elevation surrounding a depressed area was observed. A gastrointestinal series was unremarkable except for a 2 centimeter area of increased density between the diaphragm and the fundus medially.

When bleeding did not recur, he was discharged since it was felt that nothing else could be offered him. He was re-admitted two months later when he developed a left subphrenic abscess. It was drained and a gastric fistula which followed eventually healed.

He remained free of symptoms for two and one half years, until 16 August 1954, when he was admitted again because of melena. He did not require transfusions. A gastrointestinal series revealed a definite mass effect compressing the fundus of the stomach and containing calcification centrally. The mass appeared extramucosal and was larger in size measuring 8 centimeters in diameter. Surgery was advised but the patient refused.

Clinically, the patient continued to do well and an interval gastrointestinal series on 10 October 1955 revealed

the mass to have further enlarged to 12 centimeters in diameter depressing the fundus and body of the stomach. The mass was extramucosal with multiple cacific deposits noted at this time. He again refused operation.

He returned in March, 1957 again with melena. The large mass in the left upper quadrant was easily palpable. A film of the abdomen again revealed the large density occupying the entire left upper quadrant. A gastrointestinal series revealed the mass to have again increased in size and measured 17 centimeters in diameter, displacing the stomach inferiorly and laterally. The patient finally consented to surgery and at exploration via a thoracoabdominal approach, the massive tumor occupying the entire left upper quadrant was observed. It was firmly adherent to the liver, left diaphragm and spleen. The entire parietal peritoneum was studded with neoplastic appearing masses varying from 0.5 to 2 centimeters and were larger than on the initial laparotomy of 1951. Masses were noted on the mesocolon, omentum and serosa of the small intestine. Most of the large tumor mass was removed by excising the greater curvature of the fundus and body of the stomach with the spleen. A good deal of tumor tissue, however, remained attached to the diaphragm and liver. His postoperative course was stormy and complicated by an infected hemothrax requiring thoracotomy and drainage. The pathology report of the stomach specimen again revealed leiomyosarcoma with metastasis to the spleen and omentum.

He was followed by his personal physician and was always found to be in excellent health. He gained considerable weight.

Interval films of the abdomen between the period 1958-1972 revealed a progressive increase in the calcific deposits throughout the entire abdomen, no doubt conforming to the seeding noted at the time of surgery. The calcific deposits vary in size and shape and a good number reveal an area of lucency within the rounded deposits. Films from 1972-1979 reveal no change which we feel represents a static and controlled course.

In September 1979 he returned to the hospital with hematemesis. Gastroscopy revealed no intrinsic pathology except for superficial erosions of the gastric mucosa. He was transfused and bleeding never recurred.

A follow up gastrointestinal series failed to reveal an evidence of recurrence in the stomach.

Pathology review: Because of the unusually long survival for a case of leiomyosarcoma the pathology slides were reviewed by one of us. (K.G.)

Microscopy: The tumor consists of relatively homogeneous medium-sized cells containing round to ovoid nuclei and a loose eosinophilic cytoplasm with ill-defined cell borders. The nuclei show a fine chromatin distribution with inconspicuous nucleoli. The tumor is separated roughly into cords and irregular islets of loose connective tissues without any particular pattern. There is an occasional histiocyte within the stroma. Portions of the tumor show a tendency towards necrosis. The tumor seems to infiltrate the submucosa of the stomach and the wall itself but shows no direct connection with the mucosa. The spleen shows a subcapsular infiltration by the same tumor. Isolated areas of calcification are seen near the necrotic zones. There are relatively few mitotic figures present, none of which appear atypical. Diagnosis: Leiomyoblastoma of the stomach with metastases to omentum and spleen.

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Malignant Neoplasms of the Stomach

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Stomach and Intestine (I To Cho) 14: 1979; 1697-1700

Spontaneous Regression of a Carcinoma of the Residual Stomach with Latent Carcinoma of the Pancreas: Autopsy Report
Kimura W; Ohtsubo K; Miura H; Kino K
Japanese Journal of Clinical Oncology 17(2): 1987; 187-192

Benign Neoplasms of the Stomach

A Disappearing Tumour of the Stomach

Lehtinen E; Sutinen S
Annales Chirurgiae et Gynaecologiae Fenniae 57: 1968; 560-562

Extracted Summary

The case report of a man aged over 60 years with a round tumour about 5 centimeters in diameter in his stomach for over four years which was unchanged. Because of ankylosing spondylarthritis the patient was not suitable for gastroscopy and because of stenocardia the risk was too high for the laparotomy. Therefore PAD was not available.

The tumour disappeared suddenly leaving a slight scar. The patient died one year later of pulmonary embolism. At the autopsy a round depression at the lesser curvature of the stomach was noticed, however neoplastic cells could be detected. There were no metastases. It seems to the writers that there had been a benign polypus which necrotized, and the scar underwent malignant degeneration.

Selected Case Report

The patient in question was a man 71 years old at death in 1966, who during the last twenty years of his life had had ankylosing spondylarthritis. Since 1956 he had felt ill defined pains in the upper epigatrium. The same year he had undergone the barium meal examination, which did not reveal any pathological features. In 1958, the patient was hospitalized on account of stenocardia. At that time a tumour was recognizable in the stomach. It was round, about 5 centimeters in diameter and fixed to the lesser curvature. Because of stiffness of the spine the patient was not suitable for gastroscopy. He had anemia, with haemoglobin of 8.7 gm/100 cm^3, but no blood could be detected in the stools. After five days the examination was repeated and the finding was the same as before.

In 1962, the patient was readmitted, because of superficial thrombophlebitis in his leg. The status of the stomach was checked again and the tumour was unchanged. The patient had no symptoms and no evidence of malignancy.

In 1965, the patient was readmitted, this time because of a cerebral insult. Barium meal examination: The tumour had entirely disappeared and nothing was left but a slight disturbance of the mucosa. The patient had no symptoms.

In 1966, the patient suddenly died, with signs of pulmonary embolism. Autopsy Report (Sutinen): The patient had died of pulmonary embolism from the leg veins, having been bedridden owing to an infarction of the right occipital lobe of the brain. He also had coronary heart disease with congestive failure, benign nephrosclerosis, ankylosing spondylarthritis, nodular goitre, bilateral pulmonary apical scars and pleural adhesions. At the midportion of the lesser curvature of the stomach a round depression, about one centimeter in diameter, was noticed in the mucosa. The area felt harder than the surrounding tissue and grossly gave the impression of an old scar with small calcium deposits. Microscopically, the mucosa showed slight autolysis and consisted of small, loosely attached cells which did not form glandular structures. Only a few normal-looking glands were seen in the midst of this atypical epithelium, which infiltrated the submucosa, where the neoplastic cells were better preserved. The whole tumour area was not more than one centimeter in diameter and no metastases were found.

A Solitary Giant Polyp in the Cardiac Region Which Fell Off Spontaneously

Okumura H; Takayuki K; Masao S; Kuniaki I; Takaya U
Stomach and Intestine (I To Cho) 4(2): 1969; 1259-1263

Extracted Summary

A large solitary gastric polyp was experienced in a 43-year-old woman, measuring 3.8 x 2.8 x 2.5 centimeters with a stalk 2 centimeters located on the anterior wall of the cardiac area. Strangely enough, the polyp could not be found at the third x-ray examination done 4 months later; the polyp disappeared spontaneously except stalk.

This case has two interesting points; the one is the site of the polyp and the other is its spontaneous disappearance. A polyp in the cardiac region is of rare occurrence; mostly it is located in the prepyloric antrum or in the body. Considered as a precancerous disease, gastric polyp is surgically resected usually whenever it is found. Lately there are some reports that solitary gastric polyp seldom changes to cancer, but long term follow-up of gastric polyp without operation is as yet insufficient.

In Japanese literature, there is only one report of a solitary gastric polyp located in the prepyloric antrum, the head of which had spontaneously fallen off and disappeared. It is scarcely possible for a polyp in the cardiac area to fall off from the gastric wall because of no peristaltic movement in that area as compared with one in the prepyloric antrum. The cause of disappearance of this polyp is therefore obscure. The patient is said to have caught cold at about two months before the third x-ray examination, complaining of severe cough. Ten days later she had an attack of abdominal colic pain with dizziness. It was considered that circulation within the polyp might have been disturbed by severe cough, and fell off later as a result of necrosis caused by the cough.

Spontaneous Disappearance of Gastric Polyps: Report of Four Cases

Tsukamoto Y; Nishitani H; Oshiumi Y; Okawa T
American Journal of Roentgenology 129(5): Nov 1977; 893-897

Extracted Summary

During follow up radiologic observations of 88 subjects with benign gastric polyps, four rare cases were encountered. In two of these, the polyps had become detached; in the other two, they decreased in size. One of the latter eventually disappeared. Possible causes, though not yet established, are considered. These four cases are discussed in light of earlier reports in the literature.

Selected Case Report

Case 4: A 51-year-old woman (M.F. 274429) underwent an upper gastrointestinal examination at age 45 because of stools positive for occult blood. A hemispherical polyp 0.8 centimeters in diameter was found in the gastric antrum. Gastroscopy was not performed at that time.

No interval change was seen at upper gastrointestinal series 22 months later. Gastroscopy revealed a benign polyp. This polyp could not be detected 4 years later after an upper gastrointestinal series and gastroscopy. The gastric mucosa at the polyp site was normal.

Spontaneous Disappearance of Fundic Gland Polyposis: Report of Three Cases

Iida M; Yao T; Watanabe H; Imamura K; Fuyuno S; Omae T
Gastroenterology 79(4): Oct 1980; 725-728

Extracted Summary

Three cases are reported in which multiple sessile polyps of the stomach disappeared spontaneously during the follow-up period from 9 to 34 months. All of the patients were middle-aged females, and the distribution of the polyps was limited to the portion of the stomach with fundic glands. Histologic examination revealed simple hyperplasia of the fundic glands with microcysts. The macroscopic and histologic pictures were the same as the gastric lesions ("fundic gland polyposis") found in cases with familial adenomatosis coli; however, colonic polyposis was not observed in our cases. The possible cause of the spontaneous disappearance of the polyps was discussed.

Selected Case Reports

Case 2: A 32-year-old woman had epigastric pain and nausea in December 1974. Though she underwent an appendectomy in February 1975, the symptoms remained unchanged. She first noted bloody stool in April of the same year. She was finally admitted to the hospital in October of the same year for evaluation. No significant abnormality was found in the past history, family history, or physical examination. Roentgenographic and endoscopic studies of the stomach revealed multiple small sessile polyps (at least 15 or more in number and 2-5 millimeters in diameter) in the fornix and body. Histologic study of the biopsy specimens revealed simple hyperplasia of the fundic glands with cystic dilatation as shown in case 1. Radiography did not show any polyps in the duodenum and small intestine. Barium enema revealed one pedunculated polyp in the sigmoid colon, which was diagnosed as metaplastic polyp by endoscopic polypectomy. Gallstones were found by cholecystography, and the patient underwent cholecystectomy. Subjective symptoms then disappeared. Gastric radiographs taken 2 years and 10 months later confirmed the disappearance of the polyps.

Case 3: A 41-year-old woman was diagnosed as having gastric polyps at the mass screening for gastric cancer in spite of having no subjective symptoms in October 1978. She was hospitalized for examination. Family history was negative for gastrointestinal disease. Physical examination did not reveal any significant abnormalities. Roentgenography and endoscopy of the stomach revealed multiple sessile polyps (at least 15 or more in number and 2-6 millimeters in diameter) in the fornix and body. The histologic findings of the biopsy specimens were the same as those in cases 1 and 2. Upper gastrointestinal series showed no polypoid lesions in the duodenum and small intestine. Barium enema revealed no abnormalities. Roentgenographic and endoscopic studies of the stomach 9 months later revealed that most of the polyps had disappeared with exception of a few polyps in the fornix.

Spontaneous Resolution of Multifocal Gastric Enterochromaffin-Like Cell Carcinoid Tumours

Harvey RF
Lancet 1(8589): Apr 9 1988; 821

Extracted Summary

The natural history of the multifocal gastric enterochromaffin-like (ECL) cell carcinoid tumours associated with achlorhydria secondary to autoimmune atrophic gastritis is unknown. In two patients with this combination, who have remained untreated but have been monitored endoscopically for some years, many of the tumours have spontaneously disappeared. A precise explanation of the ECL cell hyperplasia which causes these ECL cell gastric carcinoid polyps to appear will probably have to await discovery of the functions of these cells and of their secretory product. The findings of these two patients suggest that in many multifocal ECL cell carcinoid tumours associated with achlorhydria and autoimmune atrophic gastritis may run a benign course which can end with the spontaneous regression of the tumors.

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Benign Neoplasms of the Stomach

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Spiegel EL; Weinrib M; Hoyumpa AM Jr
Gastrointestinal Endoscopy 14: Feb 1968; 156-159

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Pickens DR Jr; Farringer JL Jr
American Surgeon 35(5): May 1969; 361-365

Case of Spontaneous Regression of Gastric Polyp
Takamura Y; Kono T
Naika 28(6): Dec 1971; 1162-1165

Malignant Neoplasms of the Colon, Rectum and Anus

VIII. Regression of Metastatic Lesions: Report of Two Cases

Brown CH
American Practice (Clinical Pediatrics) 12(9): Sept 1961; 655-656

Extracted Summary

The mechanism causing the systemic manifestations of malignant disease is not known, but possibly a similar mechanism, in reverse, may account for the occasional spontaneous regression of metastatic tumors. Everson and Cole reviewed reports of spontaneous regression of malignancies and found that 112 cases, proved histologically, appear to have adequate documentation to be acceptable as probable examples of spontaneous regression of cancer. In addition to the spontaneous regression of malignant tumors, regression and disappearance of some benign tumors have been reported. Fibromyomas of the uterus commonly regress after the menopause.

The possibility of physiologically inducing regression of tumors without surgical intervention or radiotherapy is evident from some of the basic research on cancer. The spontaneous regression of metastatic cancer has a basic effect on our understanding of cancer, and gives hope for more effective means of treatment than our present tools–surgery and radiotherapy. Because of the importance of this problem, the author reports 2 cases of spontaneous regression.

Selected Case Report

The first patient, a 54-year-old woman who was initially examined in 1945, had had symptoms of a colonic lesion for three years, with alternating constipation and diarrhea, and blood in the stool. Roentgen examination showed a narrowed area in the sigmoid colon. The patient was operated upon by the late Dr. Thomas F. Jones. At operation, the patient was found to have large mesenteric lymph nodes with palpable metastases to preaortic nodes and to the liver. Definite metastases to the liver were palpated at the time of operation, but a biopsy specimen of the liver was not obtained. Pathologic report did show adenocarcinoma of the sigmoid colon with invasion of the entire wall, direct extension into parasigmoid areolar tissue, and metastases to regional lymph nodes: This is the type of colonic carcinoma in which one might expect hepatic metastases, although these were not proved by histologic diagnosis. On the basis of extension of the carcinoma to adipose tissue and to regional lymph nodes, as proved by pathologic examination, and on the basis of metastases to preaortic nodes and to the liver, as suspected by examination at operation, prognosis was reported as poor to the patient and her family.

In spite of the operative and pathologic findings, this patient was examined in January 1961, 16 years after her operation, and was entirely well. Findings on roentgen examination of the colon were normal except for diverticulosis. All liver function studies were normal. There was no palpable mass.

At the time of operation extension to the adipose tissue and regional lymph nodes was proved pathologically and metastases to the preaortic nodes and liver were suspected. Without pathologic proof of the distant metastases, it is possible that the preaortic nodes and the mass noted in the liver might have been granulomas, such as an amebic cyst of the liver, rather than metastases. Nonetheless, this patient has had a remarkable survival from a severe cancer with suspected metastases to preaortic nodes and liver.

Spontaneous Regression of Cancer

Fullerton JM; Hill RD

British Medical Journal 2: Dec 21 1963; 1589-1590

Extracted Summary

The authors report the case of a 58-year-old woman diagnosed with anaplastic adenocarcinoma of the colon and stomach at gastrectomy. At her death sixteen years later from bronchopneumonia, necropsy revealed no evidence of carcinoma.

Selected Case Report

The patient was a woman and was first seen in St. Giles's Hospital, Camberwell, in 1947 at the age of 58 years, when a subtotal gastrectomy was performed. Mr. G. Matheson kindly supplied the following notes:

"At operation the growth was found to be infiltrating the transverse mesocolon involving the middle colic entry. It was considered at operation that the patient would not stand both gastrectomy and colectomy, so a high partial gastrectomy and intercolic gastrojejunostomy was carried out; section of stomach showed a diffuse infiltrating carcinoma. A further laparotomy was carried out on December 2, 1947, but the mass at the transverse colon was much larger than before and a biopsy only was taken, which showed the presence of anaplastic adenocarcinoma. The patient made a good recovery and was discharged home on December 20, 1947. She attended my follow-up clinic for some years and I last saw her about 10 years ago."

On October 2, 1963, the patient was admitted to New Cross Hospital in a confused senile state associated with hypertension, blood pressure 220/130, and severe bronchopneumonia from which she died on October 7.

At necropsy there was an encysted empyema between the middle and lower lobes of the right lung, the lower lobe showing bronchopneumonia. The left lung was congested. The heart weighed 430 grams and the coronary arteries were atheromatous. The gastrointestinal tract showed no evidence of growth. The omentum and mesentery appeared normal. No glands were present. Sections were examined from post-mortem tissues and no evidence of carcinoma was demonstrated.

Tumor Clinic Conference

Mayo CW

Cancer Bulletin 15: 1963; 78-79

Extracted Summary

A case is reported in which the patient was alive and well twelve years after a palliative resection for a malignant ulcerative adenocarcinoma of the left colon, Grade II. At operation, multiple liver metastases were found along with nodal involvement. When the patient was examined twelve years after operation, no evidence of carcinoma was found.

Selected Case Report

In May 1950, this 63-year-old white female was admitted to the Mayo Clinic, because of a two-day episode of diarrhea associated with the loss of a large amount of bright red blood. This episode had occurred four weeks before admission to the clinic, and, in the interval, the patient had passed some blood with each bowel movement. Because of her weakened condition, she had been given one unit of blood by her personal physician. There had been no other recent change in her bowel habits, but she did give a 25-year history of hemorrhoids and occasional mild rectal bleeding.

Physical Examination: The patient was a well-nour-

ished and well-developed elderly woman who weighed 149 pounds. Temperature was 98.4°F; blood pressure, 150/85; and pulse, 80. Findings by physical examination were within normal limits except for slight tenderness in the lower left quadrant of the abdomen. No mass was palpable by abdominal or rectal examination.

Radiological Examination: No abnormalities were seen in a roentgenogram of the chest. But, on the basis of roentgenographic studies of the colon, a diagnosis of carcinoma of the descending colon at its junction with the sigmoid was made.

Laboratory Examination: Red blood cell count was 4.4 x 10^6/mm^3; white count was 5,600. Hemoglobin was 9.3 gm/100 ml; blood urea, 32; serum protein, 6.9 (albumin, 4.3, and globulin, 2.6); results of a serologic test for syphilis were within normal limits. Urinalysis showed a specific gravity of 1.010, and a neutral reaction; albumin, two plus, and pus cells, two plus.

Proctoscopic Examination: No abnormalities were seen at proctoscopy, but the proctoscope could be passed only ten centimeters, because the patient had been poorly prepared.

Treatment: In May 1950, a laparotomy, with a primary left lower rectus, muscle-retracting incision, was performed. Multiple metastases were found in both lobes of the liver. The gallbladder was free of stones. The growth which was in a mobile portion of the sigmoid flexure, approximately in the proximal third, had perforated the mesentery. A palliative resection was done and a wide segment of the mesentery extending on either side of the growth was removed. Between the sigmoid and descending colon, an end-to-end anastomosis was made in which an outer row of running cotton in the posterior serosa and interrupted cotton in the anterior serosa were used. The mucosa was closed with running catgut. After the colonic mesentery was closed, the operative area was swabbed with a tincture of benzethonium chloride (Phemerol®), and five grams of sulfanilamide was instilled. Closure (by first assistant) was made with double continuous Lukens Number One chromic catgut sutures. After closure, the area was dilated. During the operative procedure, the patient was given a transfusion of 500 cc of blood.

The pathologist reported that, in the removed specimen (ten centimeters of the left colon), an annular ulcerative adenocarcinoma, Grade II, which measured 6 x 6 x 1 centimeter, began about 3 centimeters proximal to the distal end of the segment. The growth involved the peritoneum and extended for approximately one centimeter into the pericolonic fat. There was massive nodal involvement three centimeters from the point of ligation of the major vessels, five centimeters from the tumor. Venous invasion was identified in the microscopic examination of the pericolonic fat. The overall classification of the lesion was Group C.

The patient's immediate postoperative course was uneventful and she was discharged on May 13, 1950, the twelfth day after operation. Her condition has remained good. In 1956, and, again, in 1960, she was examined at other institutions. No evidence of recurrence was found by x-ray examination of the colon or by proctoscopy. In response to a follow-up inquiry at a later date, the patient's health was described as good.

In July, 1962, a note was received from the patient's son. It read, "Since five years without recurrence of a cancer is considered a cure,...my mother can be considered cured; it was twelve years ago that she was operated upon. However, at the time of the operation, the family was informed that my mother had an incurable cancer, that it had already spread to the liver and other vital organs, and that only eight or nine months of life could be predicted. I can hardly believe the diagnosis was faulty, nor that her records were switched with another patient's. Since I also must rule out miracles, can it be that this was a case of self-cure, about which I have read several reports? If the latter is true, would it be of interest to study this case in order to advance the discovery of a cure for cancer? To the best of my knowledge, my mother is unaware of having had a cancer, and since she appears 'cured,' we think there is no point in telling her. If you are interested in further information, please contact."

The patient, who was then 74 years of age, returned to the clinic for a checkup on November 15, 1962. She reported occasional constipation, and one episode, two years earlier, of rectal bleeding associated with the passage of a hard stool; she had no other complaints referable to the large intestine.

At physical examination, no evidence of cancer recurrence was found. Her liver was palpable one fingerbreadth below the costal margin, but it was smooth and free from nodularity. No abnormality was found by proctoscopy to 24 centimeters. Findings by x-ray examination of the chest were within normal limits. Roentgenographic studies of the colon showed a freely functioning colostomy; the rest of the colon appeared normal. Hemoglobin measured 12 gm/100 ml. Bromsulphalein retention was six per cent, and alkaline phosphatase measured ten units (King-Armstrong).

Spontaneous Regression of Hepatic Metastases from a Carcinoma of the Colon

Ten-Year Follow-Up of a Patient with Familial Polyposis

Rankin GB; Brown CH; Crile G Jr

Annals of Surgery 162(1): July 1965; 156-159

Extracted Summary

Spontaneous regression of malignant tumors, both primary and metastatic, which are proved by tissue diagnosis, is rare. A patient with a history of familial polyposis of the colon underwent exploratory surgery for a large rectal mass. The mass proved to be poorly differentiated adenocarcinoma Grade IV and the patient had hepatic metastases as well. A proctosigmoidectomy and combined abdominoperineal resection with a colostomy was performed. Later, when a total colostomy was performed there was no evidence of hepatic metastases. This patient with hepatic metastases at time of a first surgery survived 10 years and, at a second surgery, there was no evidence of these hepatic metastases. Factors that may be responsible for the spontaneous regression of tumors are discussed. The authors believe that no theory current at the time of the paper offers an adequate explanation why, as in the above case, while one malignant tumor spontaneously regresses, another develops.

Selected Case Report

A 44-year-old white man, in August 1953, had diarrhea (12-15 liquid brown stools daily, with no gross blood, mucous or pus) accompanied by urgency and tenesmus. He was thought to have ulcerative colitis and was hospitalized elsewhere in January 1954 and started on a course of succinylsulfathiazole and hydrogen peroxide enemas. Some improvement occurred but the patient continued to have diarrhea (3-12 stool per day) and lose weight.

In February 1954 the patient was first examined at the Cleveland Clinic because of intractable diarrhea, weight loss and weakness. According to the family medical history the patient's father, mother, a brother and a sister all died of cancer of the bowel. One sister who was living had diabetes mellitis, and another sister and a brother were living and well.

On physical examination the patient's blood pressure was 104/80 mm. Hg, pulse rate 72 and regular, and temperature 37.3°C. The patient appeared chronically ill. There was pulmonary osteodystrophy. No lymph nodes were palpable. The thyroid gland was not enlarged. The chest was clear to percussion and auscultation. Heart size was normal. The abdomen was soft and there were no enlarged organs or palpable masses; minimal localized tenderness was present in both lower quadrants. Bowel sounds were active. Rectal examination revealed numerous small soft masses.

Laboratory studies disclosed a hemoglobin content of 13.0 gm/100 ml, hematocrit of 45 % and white blood cell count of 6,850/mm3. Serum protein level was 7.0 mg/100 ml, with albumin 3.6 gm and globulin 3.4 gm/100 ml; blood sugar content (2-hour postprandial) was 117 mg/100 ml. Sulfobromophthalein liver function test showed 2% retention at 45 minutes.

Proctoscopic examination revealed that the ampulla was filled with a neoplastic mass, and above this mass could be seen multiple polyps. Evidence of widespread polyposis involving the sigmoid, descending and transverse colon was visualized on a roentgenogram of the colon. The chest was normal according to a routine roentgenogram. On the basis of the family history, the patient's physical and proctoscopic findings and roentgen studies, a diagnosis of familial polyposis with carcinoma of the rectum was made.

First Operation: In February 1954 an exploratory laparotomy was performed and in addition to the large neoplastic mass in the rectum, four raised discrete nodules each about 1 centimeter in diameter were found in the right lobe of the liver. Biopsy of one of these nodules showed poorly differentiated carcinoma. A proctosigmoidectomy and a combined abdominoperineal resection with a colostomy were performed. Because of the presence of the hepatic metastases, the limited type of operation was done rather than the planned total colectomy for polyposis. The pathologic diagnosis of the rectal tumor was that of Grade 4 adenocarcinoma; neoplastic cells had invaded the fat tissue and secondary tumor cells were found in 3 of 41 nodes.

Postoperatively the patient had no difficulty and in the next year gained 50 pounds and returned to normal activity. He was seen annually for the next 4 years and on three separate occasions was hospitalized because of partial obstruction of the intestine. Each time, symptoms were relieved by conservative management. At a follow-up examination in January 1960, 7 years after the original operation, the patient was entirely well and asymptomatic; a roentgenogram after barium enema of the colon again showed diffuse polyposis but no evidence of recurrent tumor.

In July 1963 diarrhea again developed, with stools every 30 to 60 minutes during the day and from 2 to 6 times at night, but with no bleeding, weight loss, pain or cramps. At physical examination in September 1963, blood pressure was 138/94 mmHg, pulse rate 78 and regular, and temperature 36.9°C. The patient appeared acutely ill and had a sallow complexion. No adenopathy was present. The thyroid gland was normal. The chest was clear to percussion and auscultation. No abnormalities were found on examination of the heart. Epigastric tenderness without rebound was found on abdominal examination but there were no enlarged organs or masses. The colostomy stoma was normal.

Laboratory tests revealed a hemoglobin content of 9.6 gm/100 ml, hematocrit 32%, white blood cell count 5,600/mm^3 with a normal differential count, fasting blood sugar content of 79 mg/100 ml, blood urea nitrogen content of 37 mg/100 ml, alkaline phosphatase level of 3.1 Bodansky units, prothrombin time of 100%, total serum proteins level 6.0 gm with albumin 3.43 gm/100 ml and globulin 2.57 gm/100 ml. Sulfobromophthalein liver function test showed only 2% at 45 minutes. Serum electrolyte values and urine were normal, and three stool examinations showed 2 plus guaiac, 1 plus, and negative respectively.

Plain roentgenogram of the abdomen showed evidence of a normal gas pattern. A urogram showed that the dome of the urinary bladder was depressed on the right side; this was thought to be due to extrinsic pressure from the sigmoid portion of the colon. Both drainage systems appeared normal. A barium x-ray study through the colostomy showed a large annular carcinoma of the cecum. A subsequent roentgenogram of the small bowel showed evidence of a dilated distal jejunum at 1 hour, normal ileum at 2 and 3 hours and at 5 1/2 hours the terminal ileum was filled and appeared normal. The ascending colon was partially filled and an area of narrowing was seen in the ascending colon; this was thought to be due to incomplete filling. A diagnosis of carcinoma of the ascending colon was made.

Second Operation: In September 1963, the remaining colon, along with 4 centimters of the terminal ileum was resected and an ileostomy was performed. At operation there was a large fungating neoplastic mass in the ascending portion of the colon, 7 centimeters from the ileocecal junction, and many polypoid masses scattered along the entire bowel. A careful examination of the liver revealed no evidence of nodules found at the first operation. The pathologic diagnosis of the cecal tumor was also adenocarcinoma. No neoplasm was found in 22 nodes and the tumor did not extend into the fat. Some random polyps in the specimen showed focal carcinoma-in-situ. As before the postoperative course was uncomplicated.

A 9-month follow-up report since the last operation (September, 1963) reveals that the patient has gained 40 pounds, feels well and has no complaints.

Long-Term Survival of Mother and Son with Widespread Metastatic Adenocarcinoma of the Colon

Snyder W; Clark RM; Rubini JR
Cancer 21(1): Jan 1968; 129-133

Extracted Summary

A woman who had widespread metastatic adenocarcinoma of the colon at laparotomy died more than 14 years later with no clinical evidence of malignancy. In her only son, widespread metastatic carcinoma of the colon was found at laparotomy 9 years ago but at present he is well without any clinical evidence of malignancy. Spontaneous regression of carcinoma of the colon is extremely rare. The possible mechanisms in the two cases presented are discussed.

Selected Case Report

Mother, DB, who had mild rheumatoid arthritis, was admitted to the University Hospitals of Cleveland in January 1939 at age 62 for evaluation of increasing constipation and a 30-pound weight loss. The patient underwent exploratory laparotomy on January 20, 1939.

According to the operative report: "In the mid-portion of the sigmoid there was a scirrhous annular tumor involving about 8 centimeters of the colon in its long axis...there were palpable nodes in the mesosigmoid...the tumor was obviously inoperable, but in view of the amount of bleeding and impending obstruction, resection was decided upon. Tumor was cut across in order to separate sigmoid from small intestine and uterus..."

The pathology report of the removed tissue noted "annular ulcerative carcinoma of the bowel" and microscopic section of the regional lymph nodes revealed metastatic adenocarcinoma. The surgeon could not remove all the tumor. The surgeon's notes (1/20/39) mentioned "tumor had penetrated to small bowel, bladder, uterus.

Prognosis poor." The patient's postoperative course was complicated by wound infection which started on postoperative day 4 characterized by fever to 102°F for 10 days, with a maximum leukocytosis of 15,750/mm3. As antibiotics were not in use in 1939, she made a slow recovery, being discharged on February 12 of that year. In spite of the dire prognosis, this patient lived 14 1/2 years after the metastatic carcinoma was found. She died at age 78. No autopsy was performed. Her physician informed us that there was no clinical evidence of malignancy at the time of her death.

Regression of Cancer of the Rectum After Intensive Meditation

Meares A

Medical Journal of Australia 2: Nov 17 1979; 539-540

Extracted Summary

The author reports a case of regression of carcinoma of the rectum after intensive meditation in the absence of any medical treatment whatsoever.

Strangely enough, at present there is no clear indication that one type of neoplasm is more susceptible to intensive meditation than another. This probably means that host resistance and the effect of a profound and sustained reduction of anxiety on the immune system are more important in this work than is the nature of the tumour itself. It may well be that the extreme reduction of anxiety in these patients triggers off the mechanism as that which becomes active in the rare spontaneous remissions. This would be consistent with the observation that spontaneous remissions are often associated with some kind of religious experience or profound psychological reaction.

Before the commencement of treatment, it is explained to all cancer patients, and if possible to a relative, that this approach is at present purely experimental. If the patient says that he has been advised to have chemotherapy, and asks for my opinion, he is always told that this is the orthodox treatment.

My data have not yet reached a stage at which they can be effectively subjected to statistical analysis, and my own advancing years make any prolonged trial impracticable. In these circumstances, the publication of case reports may bring others to consider this approach as a possible alternative treatment of cancer.

Selected Case Report

The patient is a 64-year-old man, himself a professional in psychological healing. At the time when he first consulted me, over 12 months ago, he was scarcely able to use his bowels at all and was having an enema each day. He had to get up six or eight times each night to pass urine. His general health and strength were deteriorating. A surgeon had diagnosed carcinoma of the rectum, and this had been proved by biopsy taken per anum. The photomicrograph shows an adenocarcinoma infiltrating tissues beneath the muscularis mucosae. Immediate operation was advised; he was adamant that he would not submit to it. He had heard of the regression of cancer of the breast in one of my patients and sought my help. He was led into intensive meditation, which he captured quite readily through the help of his own professional experience. In addition to seeing me daily, he was required to meditate by himself for one to two hours each day. In two weeks he reported the first signs of improvement. In six weeks he was able to discontinue the use of the enema, and had regained the use of his bowels to the extent of passing stools which he described as like a pencil. In two months he was sleeping the night through without getting up. At this stage he was extremely confident that he had beaten the growth, and he went for a month's holiday to another State.

While he was away, a friend persuaded him to consult an iridologist, one who claims to diagnose bodily ailments by examining the iris. The iridologist spoke vaguely of both prostate trouble and cancer. This upset the patient, and he lost his ability to meditate. He consulted a leading surgeon, who told him the cancer was still there and advised immediate operation. He returned to me looking ill and shaken. I was able to restore his ability for intensive meditation. In two weeks much of his former strength had returned. In six months he had reasonably easy use of his bowels, passing stools of near-normal diameter. Now, over 12 months after first consulting me, he looks well and feels well. He is working at his profession as formerly, except that he allows himself three hours a day for meditation, an hour when he first gets up, ten minutes

between patients, and an hour in the afternoon. He enjoys the meditation, and says that it adds to the quality of his life far beyond the relief of his cancer.

The patient is a sensitive man of thoughtful disposition, and quite venturesome by nature. He ponders the problems of his professional work, he writes poetry, and he is an expert hang-glider. This is a sport demanding the utmost courage, in which the glider jumps off a cliff edge into a strong wind while suspended from a kite-like contraption, and is carried upward by air currents. His sensitivity and professional background have made the meditation easier for him, and his courage has helped in yet another skirmish with death.

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Spontaneous Regression of Perianal Extramammary Pagets Disease After Partial Surgical Excision
Archer CB; Louback JB; MacDonald DM
Archives of Dermatology 123(3): Mar 1987; 379-382

Benign Neoplasms of the Colon and Rectum

Spontaneous Regression of Polyps of the Colon in Children

Andrén L; Frieberg S
Acta Radiologica 46: 1956; 507-510

Extracted Summary

Two cases of spontaneous regression of polyps of the colon in children are described. Such regression has not previously been established roentgenologically. It suggests that surgical intervention may be unnecessary.

Selected Case Reports

The first case was a 5-year-old girl, who, when she came for roentgen examination of the colon, had had blood in the stools for 3 weeks. Rectoscopic examination had not revealed anything pathologic. Roentgenologic investigation, however, performed in accordance with a special elaboration of the double contrast method, showed a polyp, measuring 10 x 10 millimeters, in the upper part of the rectum, and another, measuring 10 x 8 millimeters, in the upper part of the descending colon. On control rectoscopy, the polyp in the rectum could still not be established, whereupon the roentgen examination was repeated. The polyps were again shown, and on further rectoscopy the polyp in the rectum was found and removed. It was clearly a benign adenoma (Group I in Westhues' classification). Since then the patient has had no blood in the motions. Twenty months later, a control examination of the colon was made. The remaining polyp had clearly decreased in size and then measured 6 x 6 millimeters and, six months later, at a further control examination, it had decreased still more, the measurement then being 4 x 3 millimeters.

The second case was one of a girl aged 5 1/2 years who had had bleeding from the rectum for a year; on certain occasions the mother had seen a polyp protruding from the anus. The patient had been sigmoidoscoped repeatedly and on 3 occasions had been examined roentgenologically with contrast enemas without, however, any polyp being detected. On examination with the double contrast method a very mobile polyp, measuring 15 x 10 millimeters, was found in the sigmoid colon. The polyp could still not be detected by sigmoidoscopy, and signs of bleeding disappeared after the examination. Eighteen months later, on control examination, the polyp had clearly decreased in size; it then measured 7 x 7 millimeters.

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Malignant Neoplasms of Liver and Intrahepatic Bile Ducts

Spontaneous Regression of Hepatocellular Carcinoma

Gottfried EB; Steller R; Paronetto F; Lieber CS
Gastroenterology 82(4): Apr 1982; 770-774

Extracted Summary

A 65-year-old alcoholic man developed jaundice and biopsy-proven multicentric hepatocellular carcinoma. Coinciding with abstention from alcohol and without treatment, jaundice has resolved, alphafetoprotein has become normal, and there is no evidence of tumor demonstrable by radionuclide scanning or laparoscopic liver biopsy. The patient is alive and well 48 months after the initial diagnosis. Regression of this tumor in the untreated adult has not previously been reported.

Selected Case Report

A 65-year-old black man presented to the Bronx Veterans Administration Medical Center in May 1977, complaining of epigastric pain of several weeks duration. Past medical history was unremarkable except for the ingestion of 1 quart of whiskey daily for the past 20 years. He was taking no medication. Family history was unremarkable. He was a retired manual laborer in a spark plug factory. Physical examination revealed scleral icterus and a large, rock-hard nontender liver that measured 25 centimeters in total span. The spleen tip was palpable; cardiac, pulmonary, and neurologic examinations were normal. There was no evidence of encephalopathy.

Laboratory studies disclosed the following values: hemoglobin, 11.6 gm/dl; hematocrit, 39%; WBC, 8500 /mm^3; serum total protein, 8.4 gm/dl; albumin, 3.5 gm/dl; total bilirubin, 4.0 mg/dl (2.4 direct); SGOT, 101 U/L; SGPT, 32 U/L; alkaline phosphatase, 290 U/L; GTP, 480 U/L; prothrombin time 12.3 seconds, carcinoembryonic antigen 2.2 mg/ml (within normal limits). BUN, creatinine, glucose, calcium and serum electrolytes were normal. Hepatitis B surface antigen (HBsAg), hepatitis B surface antibody (HBsAb), hepatitis B core antigen (HBcAg) [determined by radioimmunoassay], and alphafetoprotein [determined by counterimmunoelectrophoresis] were negative. Hepatitis B core antibody (HBcAb) [determined by radioimmunoassay] was positive. Liver scan showed hepatosplenomegaly with multiple filling defects in both lobes. Celiac angiography was performed and showed stretching and narrowing of the distal segments of the right hepatic artery with multiple defined tumor blushes in the right and left lobes of the liver. The splenic and portal veins were normal. Laparoscopy revealed multiple 1-2 centimeter white nodules studding

both lobes of the liver. Directed biopsies of nodules from both lobes produced specimens revealing trabeculated, tumor-forming cords, and gland like structures containing bile. A fragment of liver tissue showed several irregular septa linking portal tracts and central areas. Pericellular fibrosis was prominent; steatosis was minimal. Septa were surrounded by mononuclear cells. Neither HBsAg nor alcoholic hyaline were observed in the liver tissue. A diagnosis of active cirrhosis and bile-producing hepatocellular carcinoma was made.

As his abdominal pain was adequately controlled with acetaminophen, no chemotherapy was instituted, and the patient was discharged to be followed up in the outpatient clinic. He did well, the jaundice resolved, and he abstained from alcohol consumption. In November 1977, his liver was still minimally enlarged. Repeat laboratory studies disclosed these values: serum bilirubin, 0.5 mg/dl; lactate dehydrogenase; 191 U/L, SGPT, 84 IU/L; SGOT, 54 IU/L; and alkaline phosphatase, 102 U/L. A repeat liver scan revealed minimal hepatomegaly. Except for a single cold area in the right lobe, there was uniform uptake of the radionuclide. A third liver scan one year later was normal, and, at that time, laparoscopy revealed coarsely granular liver without evidence of the previously observed tumor nodules. The edge of the left lobe was noted to be retracted by a triangular-shaped scar. A fleshy, 3 centimeter nodule was seen below the retracted area. Biopsy specimens from both lobes revealed large fibrotic areas composed of collagen, vessels, rare ductular cells, and fat with marked infiltration by mononuclear cells. Specimens of the fleshy nodule revealed hepatocellular nodules surrounded by intense mononuclear inflammation without evidence of tumor. The patient was discharged without therapy.

He is being followed up in the outpatient clinic where he continues to be asymptomatic. His appetite remains excellent, his weight is stable, and he continued to abstain from alcohol consumption. In March and April 1979, and May 1980, his alphafetoprotein was noted to be positive (determined by counterimmunoelectrophoresis). Liver scan remained normal, and laparoscopy in March 1980 revealed a coarsely granular liver. When last seen in May 1981, 48 months after the initial diagnosis, he remains asymptomatic, his physical examination is unchanged, and the alphafetoprotein is now negative (as determined by radioimmunoassay).

Spontaneous Regression of Hepatocellular Carcinoma: A Case Study

Lam KC; Ho JCI; Yeung RTT
Cancer 50(2): July 15 1982; 332-336

Extracted Summary

A Chinese patient with documented hepatocellular carcinoma (HCC) satisfied the criteria of Everson and Cole for spontaneous regression of malignant tumors. Subsequently he survived a tumor-free period of at least 13 years. During the period of regression, shrinkage of liver coincided with a rise of SGOT to a level comparable to that reported for patients with liver cancer during hepatic arterial ligation and cytotoxic therapy. Post-regression liver biopsy from the site of the previous tumor revealed relatively uninflamed HBsAg positive tissue without dysplasia. The case provided the positive end of the survival spectrum in HCC, evidence that regression of HCC might occur by involution rather than maturation, and histologic data suggesting that regressed HCC might be replaced by surrounding tissue instead of leaving behind dysplasia.

Selected Case Report

A 50-year-old male carpenter from Southern China presented to the University Department of Medicine, Queen Mary Hospital, Hong Kong, in mid-November 1965 because of progressive distending discomfort in the epigastrium for one month. An enlarging epigastric mass was noted for two weeks. Food intake decreased; body weight was reduced by 3 kilograms during this period. There was no known history of previous hepatitis, but in 1964 he had received three months of medication for suspected pulmonary tuberculosis. There was no known history of androgen intake. Physical examination revealed the presence of jaundice, finger clubbing, ankle oedema, and hard nodular hepatomegaly. The results of the"liver function tests" were albumin, 28 gm/L; globulin, 34 gm/L; bilirubin, 20 micromoles/l; alkaline phosphatase, 154 micromoles/minute/l; SGOT, 100 micromoles/minute/l; SGPT, 30 micromoles/minute/l; and prothrombin level, 85.2%. The blood counts were as follows: hemoglobin 10.8 gm/dl, leukocytes 6.1 x 10^9/l $P_{57}L_{40}E_7M_1$, platelets 213 x 10^9/l. Hepatitis B surface antigen (HBsAg) was not tested in the serum at that time. Percutaneous needle biopsy of the liver revealed the presence of a moderately differentiated hepatocellular carcinoma. Tissue staining later by the aldehyde fuchsin method

of Shikata was negative for HBsAg. The patient's chest roentgenogram showed small nodular shadows in the left upper zone; they were compatible with the presence of metastatic tumors. Methylclothiazide was administered for ankle oedema. No antitumor treatment was given. The patient was discharged from the hospital.

He continued working, although his symptoms progressed. In February 1966 there was an episode of bronchopneumonia. Maximal disturbance was noted in late March 1966 when he had fetor hepatic, jaundice, ascites, and palmar erythema. The biochemical features were albumin, 23 gm/L; globulin, 45 gm/L; bilirubin, 78 micromoles/l; alkaline phosphatase, 142 micromoles/minute/l; SGOT, 55 micromoles/minute/l; SGPT, 95 micromoles/minute/l and prothrombin level, 71%. In addition, he had a persistent fever of 38°C. Liver biopsy confirmed the previous diagnosis of HCC; culture of the tissue yielded a pure growth of paracolon bacillus that was sensitive to tetracycline and chloramphenicol. Tissue staining for HBsAg was again negative. Administration of tetracycline and later chloramphenicol and streptomycin failed to change the remittent pattern of fever: It persisted for ten days, subsided for five days, and then repeated in similar cycles for a total period of 1 1/2 months. At the end of this time, the patient felt much improved. The epigastric distension decreased.

Over the next six months, the liver decreased progressively in size. Fluid retention disappeared. He informed us that he had been taking Chinese herbal medicine (vida infra). There had been no change in his food habit. SGOT was again elevated. (albumin, 36 gm/L; globulin, 38 gm/L; bilirubin, 19 micromoles/l; alkaline phosphatase, 314 micromoles/minute/l; SGOT, 100 micromoles/minute/l; SGPT, 80 micromoles/minute/l) By mid-November 1966, finger clubbing and a spider angioma remained as the only abnormal physical findings. There was no clinical evidence of HCC. A chest roentgenogram was normal. Minimal biochemical abnormalities were still noticeable. (albumin, 37 gm/L; globulin, 33 gm/L; bilirubin, 13 micromoles/l; alkaline phosphatase, 188 micromoles/minute/l; SGOT, 40 micromoles/minute/l; SGPT, 35 micromoles/minute/l; prothrombin level, 89%) Repeat liver biopsy from the location of the previous tumor near the site of the first biopsy showed only slight cellular irregularity and some increase in binucleated hepatocytes. There was no dysplasia. Tissue staining later for HBsAg on this biopsy was positive.

Since then, the patient has remained fully functioning. There was no clinical or biochemical evidence of liver cirrhosis. A liver scintiscan with ^{113}In performed in 1971 showed the liver to be of normal size, shape and position; there was minor mottling, but the "hot spot" was preserved. Hepatic arteriography in 1972 showed no feature of residual HCC. When last assessed in late 1979, he was still working, asymptomatic, and apparently free from recurrence. HBsAg in serum was positive. His food habits were not noticeably different from before.

The recipe of Chinese herbs that he took was subsequently tried by us on about 20 consecutive patients with HCC. No detectable regression of tumor was observed in any patient.

A Case of Spontaneous Regression of Hepatocellular Carcinoma with Bone Metastasis

Sato Y; Fujiwara K; Nakagawa S; Kanishima S; Ohta Y; Oka Y; Hayashi S; Oka H
Cancer 56(3): Aug 1 1985; 667-671

Extracted Summary

A 78-year-old Japanese man with chronic liver disease developed hypervascular liver tumors accompanied by marked elevation of alphafetoprotein value (the highest level: 26,200 nanograms/ml) and pathological fracture of the femur. After an operation for the fracture followed by gastrointestinal bleeding and repeated transfusions of blood, the tumors disappeared with normalization of the alphafetoprotein level, and the radiolucent area around the fracture site of the femur became consolidated. The necrotic tissue responsible for the fracture histologically showed an appearance of hepatocellular carcinoma. The patient survives 62 months after the initial increase in alphafetoprotein level. This is a case of spontaneous regression of both hypervascular liver tumors, which are highly suggestive of hepatocellular carcinoma, and their metastasis.

Selected Case Report

A 78-year-old Japanese man was admitted to the Hitachi General Hospital on January 9, 1980, because of severe pain in the left thigh. He had no history of alcoholic ingestion. He had received a transfusion of blood during an operation of duodenal ulcer in 1958. Eight years previously he had been diagnosed as having chronic hepatitis because of abnormal values of liver function tests, which had been checked thereafter once a month. In June 1979, the level of alphafetoprotein (AFP) determined by radioimmunoassay (normal 0-20

nanograms/ml) showed 136 nanograms/ml and increased gradually up to 6860 nanograms/ml 4 months later. Liver scintigram with ^{99m}Tc at the time revealed cold areas in the right lobe which was disclosed as a moderately hypervascular lesion (6 centimeters in diameter) with displacement of the surrounding vessels in the superior lateral portion of the right hepatic lobe and a lesion (10 centimeters in diameter) with fine tumor vessels and several tumor stains at the inferior part of the same lobe by celiac angiography. The level of AFP reached 12,600 nanograms/ ml in December 1979, when a dull pain started in the left thigh and then gradually intensified. Physical examination on admission showed slight anemia and a hard, non-tender liver 4 centimeters below the right costal margin. Laboratory studies revealed the following values: the hemoglobin, 11.5 gm/dl; hematocrit, 35%; leukocyte count, 5300/mm^3; platelet, 184,000/mm^3; serum total protein, 8.7 gm/dl; total bilirubin, 0.5 mg/dl; SGOT, 78 Karmen unit (normal 10-38); SGPT, 23 Karmen unit (4-35); alkaline phosphatase, 6.6 King-Armstrong unit (2.6-10); gammaglutamyl transpeptidase 107 U/L (0-40); prothrombin time, 11.3 seconds (control 11.3); indocyanine green clearance test at 15 minutes (0.5 mg/kg body weight), 22% (0-10); AFP, 23,000 nanograms/ml. Hepatitis B surface antigen was negative and its antibody, positive determined by radioimmunoassay. X-ray film showed a radiolucent area around a fracture line near the upper end of the left femur. On the second day this linear fracture was completely dislocated on movement, and open plating fixation of the fracture was performed on January 17. Histologic study of the necrotic tissue in the fracture site of the femur, which was assumed to have produced the radiolucent area on x-ray film, revealed that this tissue consisted largely of degenerated cells in a trabecular formation and contained scattered small foci of pleomorphic viable cells with clear nucleoplasm and prominent nucleoli similar to those in hepatocytes.

At the operation the patient received a transfusion of 1200 milliliters preserved blood and for the following 4 days, 1000 milliliters fresh blood collected from two of his sons and three volunteers on the day of use. Five days after the operation, he developed gastrointestinal bleeding and received an additional transfusion of 600 milliliters fresh blood from three volunteers and 200 milliliters of preserved blood. He also received 2100 milliliters of fresh frozen plasma for the following 4 days.

Thereafter, he did well only with conservative treatments, and no gastrointestinal bleeding occurred. The level of AFP, which reached a peak of 26,200 nanograms/ml the day following the operation, began to decrease and showed 45 nanograms/ml in April 1980, when physical examination revealed definite reduction in the liver size, and liver scintigram with ^{99m}Tc could not disclose the presence of any space-occupying lesion. On computed tomography, a low density area (2 centimeters in diameter) was detected in the superior part of the right hepatic lobe where one of the two hypervascular lesions had been observed on the previous angiography; the margin of this area was enhanced by infusion of contrast medium. At that time, the radiolucent area in the left femur previously found on x-ray films disappeared and consolidated. Bone scintigram with ^{99m}Tc performed in August 1980 also showed no abnormal uptake, and celiac angiography in February 1981 disclosed no hypervascular tumor in the right lobe. Enhanced computed tomography repeated since February 1981 has not disclosed the presence of any low density area in the right hepatic lobe.

The patient is now alive in August 1984. The fractured site of the femur on x-ray film is perfectly united without the radiolucent area, and the levels of AFP have remained below 20 nanograms/ml May 1980.

Medicines which he has been prescribed since June 1979 are as follows: amoxicillin, hetacillin potassium, cefapirin sodium, doxycycline hydrochloride, spironolactone, furosemide, tranexamic acid, carbazochrome sodium sulfonate, pentazocine, antacids, anticholinergics, gefarnate, extract from hemolyzed blood of young calves (a medicine used for ulcer), polyenephosphatidyl choline, glutathione and lactulose.

Spontaneous Regression of Hepatocellular Carcinoma

Ayres RCS; Robertson DAF; Dewbury KC; Millward-Sadler GH; Smith CL

Gut 31(6): Jun 1990; 722-724

Extracted Summary

Primary hepatocellular carcinoma is the commonest malignancy world wide, although it is rare in Britain, and has a very poor prognosis with a mean survival time of six months.

Spontaneous regression has been documented in malignant disease, although only two reports of spontaneous regression of primary hepatocellular carcinoma have been published. (Lam KC et al., Cancer 50 (1982), 332-336; Gottfried EB et al., Gastroenterology 82 (1982) 770-774)

We report the case of a 63-year-old white woman who presented with abdominal discomfort, anorexia, and weight loss. Investigations showed hepatocellular carcinoma with pulmonary metastases. The primary and secondary tumours resolved without specific treatment.

Selected Case Report

A 63-year-old woman was admitted to hospital with a four-month history of abdominal discomfort and bloating after eating. There was a one-month history of anorexia and 3.2 kilogram weight loss with nausea but no vomiting. She had noted a mass in the right upper quadrant a week before admission, since when the abdominal discomfort had become progressively more severe. There was no relevant past history or family history. There was no previous history of jaundice or hepatitis, no excessive alcohol intake, no previous operations or blood transfusions, and she had been taking no drugs.

On examination she was thin, with evidence of recent weight loss. Palmar erythema was noted but no other stigmata of chronic liver disease. Irregular hepatomegaly was noted 8 centimeters below the costal margin. Her initial weight was 47.5 kilograms.

Investigations showed normal concentrations of urea, electrolytes, calcium, and phosphorus. The concentration of total protein was 81 gm/l; albumin 41 gm/l, and total bilirubin 10 micromoles/l; alkaline phosphatase activity was 549 IU/l (normal range 100-300 IU/l) (liver origin confirmed by isoenzymes), aspartate aminotransferase activity 101 IU/l (normal range <40 IU/l), glucose concentration 4.2 mmoles/l, and gamma glutamyltransferase activity 207 IU/l. The alphafetoprotein concentration (immunoradiometric assay, Novo Labs) was appreciably raised at 7390 KAU/l (normal <10). Hepatitis B surface antigen and hepatitis B antibodies including IgM anticore antibody and hepatitis A IgM were negative. The haemoglobin concentration was 11.3 gm/dl, mean cell volume 76.8 fl, platelet count 379 x 10^9/l, and white cell count 7.5 x 10^9/l with a normal differential count. A blood film showed normocytic and hypochromic red cells. The prothrombin time was 13 seconds and the serum ferritin concentration was normal at 143 IU/l. The chest x-ray film showed a number of small round shadows at the bases and one large one in the left mid-zone; the appearance was that of metastatic disease. Ultrasound scanning showed multiple, large, highly reflective lesions suggestive of tumour in both left and right lobes of the liver. No other abnormality was seen. The patient underwent liver biopsy, which showed fragments of tumour composed of large polygonal cells arranged in sheets and trabeculae with little intervening stroma but with a prominent sinusoidal structure. The tumour cells were pleomorphic, and several foci with bizarre giant nuclei and multinucleate cells were present. In between these foci the tumour cells were polygonal with either eosinophilic or clear cytoplasm and their large nuclei had prominent nucleoli. Many lymphocytes and mononuclear cells infiltrated the fragments of tumour. No non-neoplastic liver tissue was present. The appearances were those of a primary hepatocellular carcinoma.

No treatment was considered worthwhile, and the patient was discharged home with no drugs.

Five months later she was asymptomatic and had gained 3 kilograms. A repeat chest x-ray examination showed that the metastases had cleared. The alphafetoprotein concentration fell to 1 kU/l. Repeat ultrasound scanning showed considerable shrinkage of the tumour and a biopsy of the remaining abnormal area seen on ultrasound showed a cryptogenic macronodular cirrhosis with no evidence of carcinoma. One of the two cores of liver examined was almost entirely recent scar tissue. No evidence of piecemeal necrosis, hepatitis B infection, haemochromatosis, chronic biliary tract disease, $alpha_1$ antitrypsin deficiency, or alcoholic liver disease could be found from the biopsy specimens. Twelve months after presentation she remained well with further weight gain and no recurrent symptoms. Liver function tests were normal.

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McCaughan GW; Bilous MJ; Gallagher ND
Cancer 56(11): Dec 1 1985; 2622-2626

Spontaneous Regression of a Large Hepatic Tumor with Markedly Elevated Liver Enzymes (Spontane Rückbildung eines Grossen Lebertumors mit Deutlich Erhohten Serumenzymspiegeln)
Siegel EG; Hartmann H
Zeitschrift für Gastroenterologie 25(12): Dec 1987; 764-68

Spontaneous Regression of Hepatocellular Carcinoma
Gaffey MJ; Joyce JP; Carlson GS; Esteban JM
Cancer 65(12): Jun 15 1990; 2779-2783

Malignant Neoplasms of the Gallbladder and Extrahepatic Bile Ducts

Carcinoma of the Ampulla of Vater

Morley J
British Journal of Surgery 35: 1947; 146-151

Extracted Summary

Six cases of carcinoma of the ampulla of Vater treated by a radical two-stage operation with ligature of the pancreatic duct are recorded. The relative merits of the one-stage and the two-stage operation are discussed. One case of apparent spontaneous cure of an ampullary carcinoma is recorded.

Selected Case Report

Finally, I record a case with a somewhat different interest, which first focused my attention on this field. In May 1924, a woman, aged 48, was referred to me with deep jaundice of a few weeks' standing, severe pruritus, and a palpably enlarged gallbladder. On exploring her abdomen I felt a small fleshy growth the size of a cherry at Vater's ampulla. Cholecystogastrostomy was done to relieve her jaundice, and two months later, when her condition had improved greatly, I decided to attempt a transduodenal resection of the growth. At the second laparotomy to my surprise I could no longer feel the growth at the ampulla. I was certain it had not been an impacted gallstone and was at a loss to account for its disappearance. I did not open the duodenum, but finding a small, normal-looking lymph gland lying in front of the head of the pancreas to the medial side of the second part of the duodenum, I removed it for section. It proved to be stuffed with secondary spheroidal-celled carcinoma. I followed the patient up for some ten years, during which she remained in good health, and then lost trace of her. The other week I heard from Dr. Livingstone, of Hollinwood, that she had died of coronary thrombosis in 1944, twenty years after operation, with no evidence of recurrence. It is the most convincing case of a natural cure of cancer that I have met.

Neoplasms of Uncertain Behavior of the Liver and Biliary Passages

Infantile Hemangioendothelioma of the Liver

Report of Three Cases

Crocker DW; Clelland RS

Pediatrics 19(4, part 1): Apr 1957; 596-605

Extracted Summary

The infantile hemangioendothelioma of the liver is a rare and unique abdominal tumor of infancy. It resembles the common hemangioma of the skin, and may, like that lesion, have a natural course of rapid growth, followed by spontaneous regression and complete cure if its infant host survives. Recognition of the tumor and appropriate therapy are therefore of extreme importance. The usual presenting features are similar to those of other abodminal tumors but the unique capacity of this lesion to produce cardiac failure should lead one to suspect its presence when suspicion of congenital heart disease cannot be confirmed. Angiomata of the skin apparently have little diagnostic value except as a reminder that an angiomatous tumor of the liver may occur. Jaundice is probably a poor prognostic sign. Treatment of choice is surgical removal, but the majority of cases are not susceptible to this approach either because of diffuse involvement of the liver or because of involvement of major hilar structures by a solitary mass. In this event, roentgen ray therapy may offer a suitable alternative.

Three cases of infantile hemangioendothelioma of the liver are reported, one with spontaneous regression. In two cases there was cardiac hypertrophy, dilatation and failure, presumably due to arteriovenous shunting within the tumor.

Selected Case Report

Case 3: P. W., a 6-month-old pale, irritable, anoretic Negro female, was admitted to Children's Hospital for investigation of an abdominal mass which the mother had discovered 1 week earlier. Physical examination revealed a protuberant abdomen with a hard, nodular mass filling the right upper quadrant, most of the left upper quadrant, and extending below the umbilicus on the right. The heart and lungs were normal. A raised hemangioma, 0.6 x 0.6 centimeters, was noted on the right lateral aspect of the neck. There was no icterus.

Roentgenographic studies demonstrated a large density in the right upper abdomen. Intravenous pyelography disclosed a displacement downward and medially of the right renal pelvis, without distortion. The concentration of hemoglobin was 5.7 gm/100 ml.

Exploratory laparotomy was performed 8 days after admission. The operative record read as follows: "Upon opening the peritoneal cavity a small amount of straw-colored fluid (about 15 ml) was present. The liver was markedly enlarged, extending down into the right mid-abdomen and over into the left upper quadrant, and contained numerous soft nodular masses of varying size, which grossly appeared to be malignant tissue. The impression was that this was a primary carcinoma of the liver. Exploration of the abdominal contents revealed no other significant pathology."

The postoperative course was uneventful. The discharge diagnosis was possible malignancy of the liver and the parents were given a poor prognosis. Following discharge on September 5, 1948, the patient was seen at 3 month intervals in the Children's Hospital Clinic. By February 9, 1949, at 1 year of age, there was definite regression in size of the liver. In 1950, the patient moved to Louisiana. Yearly reports since then, the last in May 1956, reveal that the patient has remained in good health except for bronchial asthma. The liver has remained small.

The biopsy consisted of a soft, red-yellow, prismatic shaped, piece of tissue, measuring 0.7 x 0.8 x 0.1 centimeters. The cut surface was smooth and yellow-white. Microscopic examination revealed a well-demarcated mass with a uniform appearance, consisting of blood-containing channels, variable in size, and lined for the most part by

two or more layers of endothelial cells. At times, the inner layer of cells was flattened, but most of the cells were plump and cuboidal. Mitotic figures were occasionally seen and there was moderate variation in nuclear size and shape. The channels were separated by rather wide, loose septa of connective tissue in which hemorrhages were frequent. No thrombosis was seen. At the periphery of the tumor, occasional small cords of tumor cells extended a short distance into normal hepatic parenchyma. The anatomical diagnosis was infantile hemangioendothelioma of the liver.

Spontaneous Regression of a Putative Childhood Hepatoma: A Reappraisal

McSweeney WJ; Bove KE; McAdams AJ

American Journal of Diseases of Children 125(4): April 1973; 596-598

Extracted Summary

A 25-year follow-up is given on a patient who has undergone spontaneous remission of a massive liver tumor diagnosed as hepatoma at 5 1/2 months of age. His surprisingly benign clinical course prompted a review of the original biopsy material which has been reclassified as a vascular tumor, probably a variant of hemangioendothelioma.

Selected Case Report

A 5 1/2-month-old white boy was referred to the Cincinnati Children's Hospital in June, 1946 for evaluation of anemia and a large abdominal mass. He was not jaundiced and his past medical history was unremarkable. Physical examination revealed a well-developed pale infant boy with a protuberant abdomen. A large firm, but not nodular, right abdominal mass extended from the costal margin to the pelvis. The spleen was palpable 3 centimeters below the left costal margin.

The admission hemoglobin was 10 gm/100 ml but fell to 7.4 gm/100 ml by the fourth hospital day. Although the reticulocyte count was only 1.9%, polychromasia and normoblasts were noted on smear. There were no estimates of the number of platelets or description of red blood cells or platelet morphology. The total bilirubin was 0.6 mg/100 ml. The remainder of the laboratory data including liver function studies were within normal limits.

Roentgenograms revealed a large non-calcified right upper quadrant mass displacing the stomach and intestines to the left. No intrinsic renal abnormalities were noted on the excretory urogram.

The abdomen was explored through a generous right paramedian incision. A wedge biopsy was obtained from a dark red, richly vascular tumor which appeared to occupy completely the massively enlarged liver. No discrete tumor nodules were observed. The biopsy diagnosis was hepatoma. Without further therapy, the patient recovered sufficiently from surgery and was sent home with a hopeless prognosis.

Surprisingly, he gradually improved. When examined two years after surgery, the liver had decreased remarkably in size. At that time, the original biopsy was reviewed by several consultants who agreed with the diagnosis of hepatoma. An abdominal roentgenogram confirmed the reduction in size of the abdominal mass and demonstrated the development of dense mottled calcification in the right lobe of the liver at 21 months of age. A roentgenogram obtained somewhat later at age 8 years, and illustrated in a paper by Lee, showed further increase in the density of the calcifications.

The patient is now 25 years old, in good health and gainfully employed. He has had difficulty in obtaining health insurance because of his past history. Physical examination at this time revealed a healthy male adult with a somewhat nodular firm liver edge felt 5 centimeters below the right costal margin. The remainder of the physical examination is unremarkable. His abdominal radiographs show some contraction and increased density in the right upper quadrant calcifications, compared to films obtained during childhood.

Spontaneous Regression of Infantile Hemangioendotheliomatosis of the Liver

Demonstration by Ultrasound

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Journal of Ultrasound in Medicine 1(9): Nov-Dec 1982; 349-353

Extracted Summary

Primary liver tumors comprise less than 6% of all tumors occurring in neonates and infants. One third of hepatic tumors in children are benign, and of these 44% are vascular. Vascular tumors are the most common of those derived from stromal tissues of the liver (excluding those of hepatocyte origin). Two distinct types of vascular tumors in the liver have been described: cavernous hemangioma and infantile hemangioendothelioma, which is the more common variety. Spontaneous regression has been known to occur in some cases of hemangioendothelioma. This paper presents the first ultrasonographic demonstration of such spontaneous regression in a child.

Selected Case Report

A 7 1/2-month-old healthy white male infant was noted by his parents to have progressive distention of the abdomen over a two-week period. The child was referred for evaluation to the pediatric surgical service of the University Hospitals of Cleveland.

Physical examination revealed marked hepatomegaly, with the liver edge extending to the level of the umbilicus, and an abdominal girth of 52 centimeters. A 1 centimeter cutaneous capillary hemangioma was also noted in the baby's left arm. Results of liver function tests and a complete blood count were normal.

Plain radiographs of the abdomen revealed hepatomegaly. An ultrasound examination was performed with an Octoson water-path unit. This examination revealed marked hepatomegaly, and there were multiple well-defined echolucent lesions varying in size from 1 to 3 centimeters, with few low-level internal echoes, and hyperechoic margins. A computed tomographic scan of the infant's abdomen revealed that these lesions had lower attenuation than the normal liver parenchyma and were not enhanced by intravenous contrast medium.

Because a histologic diagnosis was deemed necessary and because malignancy (like stage IV S neuroblastoma) could not be excluded, an open liver biopsy was performed. The liver surface had multiple nodules, which were slightly raised and 1 to 3 centimeters in size, with angiomatous components on a pale background. The liver was soft and homogeneously enlarged. The unaffected liver appeared normal.

Histopathologic examination revealed that all the lesions were similar, being composed of many small vascular spaces lined by plump endothelial cells overlying a fibrous network with patchy sclerotic thickening. The final pathologic diagnosis was multifocal infantile hepatic hemangioendothelioma. The child was sent home without any treatment.

On a follow-up examination eight months later, the hepatomegaly had improved markedly. The abdominal girth was noted to be 49 centimeters. A repeat ultrasound examination was performed. Many of the previously noted lesions had disappeared, and those that remained were much less obvious. At this time, a few highly echogenic linear structures were found in the liver, possibly representing scarring of regressed tumors.

Supplemental References
Neoplasms of Uncertain Behavior of Liver and Biliary Passages

Multinodular Hemangiomatosis of the Liver in Infancy
McLean RH; Moller JH; Warwick WJ; Satran L; Lucas RV Jr
Pediatrics 49: 1972; 563

Spontaneous Cure of Hemangioendothelioma of the Liver in an Infant (Samoistne Wyleczenie Naczyniakosrodbloniaka Watroby uUnienowlecia.)
Stoba C; Cimaszewski M
Pediatria Polska 45(10): Oct 1973; 1253-1255

Benign Neoplasms of the Liver and Biliary Passages

Spontaneous Resolution of Oral Contraceptive-Associated Liver Tumor

Penkava RR; Rothenberg J
Journal of Computer Assisted Tomography 5(1): 1981; 102-103

Extracted Summary

Follow-up by computed tomography (CT) was quite useful in a woman with an oral contraceptive-associated benign hepatic cell adenoma. Follow up by CT without therapy (except to stop the oral contraceptives) was sufficient to show spontaneous regression of the lesion.

Selected Case Report

In November 1976; a 55-year-old woman presented with an acute abdomen. She had been on norethynodrel with mestranol (Envoid®, G. D. Searle & Co., Chicago, Illinois), 5 mg/day, for about 10 years without interruption.

At laparotomy, an enlarged diffusely bleeding liver was encountered. The biopsy findings were interpreted as hepatic cell adenoma. This was confirmed by Professor William M. Christopherson, University of Louisville School of Medicine, Louisville, Kentucky. A radionuclide scan revealed a large mass in the right lobe of the liver. Hepatic angiography disclosed a 6 x 8 centimeter avascular mass. Ultrasound revealed a well-defined sonolucent lesion.

The oral contraceptives were discontinued, and the patient was followed conservatively. Computed tomography (CT) studies November 28, 1977, and December 12, 1979, as well as ultrasound studies not shown, confirmed reduction in tumor size from 6 x 6 x 8 centimeters to 2 x 4 x 4 centimeters during this 24 months period. To date, the patient has had no complications.

Regression of Liver Cell Adenoma:

A Follow-Up Study of Three Consecutive Patients After Discontinuation of Oral Contraceptive Use

Buhler H; Pirovino M; Akovbiantz A; Altorfer J; Weitzel M; Maranta E; Schmid M
Gastroenterology 82(4): Apr 1982; 775-782

Extracted Summary

Three consecutive young female patients with unresected liver cell adenoma and a history of contraceptive use of several years' duration were followed up over a period of 2-4.5 years after withdrawal of hormonal medication. One patient presented multiple adenomas and in another, the adenoma was associated with a Budd-Chiari syndrome due to bilateral thrombotic hepatic vein occlusion. Complete regression of the adenomas was documented in all 3 patients by ultrasonography, liver radionuclide scan, laparoscopy, or computerized tomography. It is concluded that, in selected cases, conservative management after withdrawal of hormonal contraception may be a valid alternative to surgical therapy.

Selected Case Report

Case 1: This 32-year-old woman had been taking oral contraceptives (norgestrel 0.25 milligrams, ethinyl estradiol 0.05 milligrams) for the last 6 years. She was admitted to another hospital in January 1975 because of recurrent episodes of colicky pain in the right upper portion of the abdomen radiating to the back and to the right shoulder. The radiologic examination of the biliary tract, kidneys, and upper gastrointestinal tract was unrevealing. A technetium liver scan, however, showed large defects of radionuclide uptake in the right lobe. For fur-

ther assessment, the patient was referred to our hospital. On physical examination, an enlarged and tender liver was found 5 centimeters below the right costal margin with a smooth surface on palpation. Laboratory investigation revealed an erythrocyte sedimentation rate of 60 mm/hour and an alkaline phosphatase of 130 IU/L (normal ≤45 IU/L). Serum glutamic oxaloacetic transaminase (SGOT) and serum glutamic pyruvic transaminase (SGPT) were normal, but had been elevated previously during an episode of abdominal pain. Tests for hepatitis B surface antigen (HBsAg), hepatitis B virus antibodies (anti-HBs and anti-HBc), and alphafetoprotein were negative. Celiac arteriography identified multiple, well-vascularized tumors within the liver, reaching up to 6 centimeters in size, located mainly in the right lobe. At laparotomy, multiple nodular tumors were found scattered throughout the right lobe and the medial zone of the left lobe of an otherwise normal liver. Because of the widespread involvement, no surgical resection was done, but multiple biopsy specimens were taken revealing liver cell adenomas on microscopic examination. The contraceptives were discontinued and within a few weeks the patient was free of symptoms. In June 1978 she underwent a therapeutic abortion. At this time physical examination of the liver was normal. In September 1979 the patient was reevaluated; the liver was normal in size and nontender. All liver enzymes were within the normal range. Technetium scan and ultrasonography of the liver revealed no evidence of residual tumor.

Spontaneous Regression of Mesenchymal Hamartoma: Observations Using Ultrasound

Kenney IJ; Hendry GMA; Mackinlay GA

Journal of Clinical Ultrasound 14(1): Jan 1986; 72-76

Extracted Summary

Cystic mesenchymal hamartoma is a benign liver tumor primarily affecting infants. Almost all recorded cases have been excised, with occasional morbidity or mortality. A case which was treated conservatively (the tumor was considered unresectable) in whom spontaneous regression with calcification was documented using ultrasound is presented.

Selected Case Report

A 3-week-old male infant was transferred to the Royal Hospital for Sick Children in August 1981. The baby was normal and full-term at delivery. The initial clinical problem was cyanosis on feeding. Examination revealed a hard, irregular, mobile mass in the upper abdomen. Lower limb edema subsequently developed requiring diuretic therapy and fluid restriction. A cardiac murmur had been noted on the third day of life but was no longer detectable. No other signs of cardiac failure were present.

Alphafetoprotein was raised (>450 mIU/ml), as was gammaglutamyl transpeptidase (408 IU/L). Other biochemical and hematologic tests were normal.

The plain abdominal film confirmed a right upper quadrant mass. Chest x-ray and intravenous urography were normal. A technitium sulfur colloid scintigram revealed a photon-deficient area anteriorly in the midregion of the liver. Ultrasonic examination demonstrated an abnormal area 8 x 5 x 7 centimeters in the midzone of the liver and extending into both lobes. The tumor was well demarcated, of mixed echogenicity, and contained many small 1-2 centimeter echo-free areas.

Laparotomy was performed and revealed a vascular tumor extending into both lobes of the liver and involving the porta hepatis. It was considered unresectable and a wedge biopsy was taken.

Histologic examination showed the lesion to be a mesenchymal hamartoma consisting of numerous cystic spaces, some of which contained an acidophilic precipitate. The lining of the spaces was consistent with a lymphangiomatous origin. Patchy calcification was evident. The progress of the mass was followed with ultrasound.

When seen 2 months later, the mass had decreased in size and measured 4 centimeters in diameter. Anteriorly, there was an echogenic area with associated acoustic shadowing. The appearance suggested calcification, which was confirmed by abdominal x-ray. The mass has slowly decreased in size over the last 2.5 years. In the most recent ultrasound examination, only a transverse area of high echogenicity in the anterior and midzone of the liver remains, without any evidence of a discrete mass.

Supplemental References
Benign Neoplasms of the Liver and Biliary Passages

Regression of Focal Nodular Hyperplasia After Discontinuation of Oral Contraceptives
Ross D; Pina J; Mirza M; Galvan A; Ponce L
Annals of Internal Medicine 85(2): Aug 1976; 203-204

Complete Regression of Hepatocellular Adenoma after Withdrawal of Oral Contraceptives
Steinbrecher UP; Lisbona R; Huang SN; Mishkin S
Digestive Diseases and Sciences 26(11): Nov 1981; 1045-50

Malignant Neoplasms of the Pancreas

Spontaneous Regression of Cancer

Shapiro SL
Eye Ear Nose Throat Monthly 46(10): Oct 1967; 1306-1310

Extracted Summary

The author begins his investigation of spontaneous regression of cancer with the story of St. Peregrinus (See page 46.), and then presents brief synopses of cases that he has personally observed as well as those reported by others. He presents the case of Sister Gertrude who, it is reported, was cured of pancreatic cancer after the sisters of her order interceded with Mother Seton, deceased founder of the order. In a series of novenas, the sisters asked Mother Seton to spare the life of Sister Gertrude and she began to improve in health. She lived 7 1/2 years and died of a pulmonary embolism. At autopsy, no evidence of pancreatic cancer was found.

The author reviews the book The Spontaneous Regression of Cancer, by Drs. Everson and Cole. Possible factors that may influence spontaneous regression are discussed. Some of the tantalizing reports regarding the successful use of imunology in cancer are also presented.

Selected Case Report

Sister Gertrude of the Sisters of Charity in New Orleans was admitted as a patient to the Hotel-Dieu Hospital in New Orleans on December 27, 1934. Her health had been failing rapidly for some months. On admission to the hospital, she was jaundiced and suffered from severe pain, nausea, chills, and a high fever. She was under the care of Dr. James T. Nix, who had previously operated on her for a gallbladder condition.

A preoperative diagnosis of cancer of the pancreas was made, and an exploratory laparatomy performed on January 5, 1935. The head of the pancreas was found to be enlarged to three times its normal size. The process appeared to be inoperable and the prognosis hopeless. A biopsy of the tumor was done and the wound closed. A diagnosis of carcinoma of the pancreas was made by three pathologists.

The sisters of the order interceded with Mother Seton, deceased founder of the order, in a series of novenas to spare the life of Sister Gertrude so that she might continue in service. She began to improve in health and made rapid progress. She was discharged from the hospital on February 1 and returned to her duties on March 1.

For seven and a half years after the operation she performed her arduous duties. She died suddenly on August 20, 1942. An autopsy was performed 36 hours after death in the laboratory of the DePaul Hospital in St. Louis, Missouri, by Dr. Walter J. Siebert. The immediate cause of death was ascertained to be massive pulmonary embolism. There was no evidence of carcinoma of the pancreas.

Spontaneous Remission of Proven Cancer

Eidemiller LR; Fletcher WS; Dennis DL; Krippaehne WW
Northwest Medicine 70(8): Aug 1971; 539-543

Extracted Summary

Some cancers can be traced to inherited susceptibility and some to irritating chemicals or to viral infections. Spontaneous remission has been observed frequently enough to suggest an immunity mechanism. Removal of neoplastic bulk has enabled host resistance to overcome some cancers. Radiation, hormones, and chemicals can be of assistance to this process. Six proven cases are reported to demonstrate a number of the factors involved in successful therapy of cancer.

These cases include 1 case of spontaneous regression of a large tumor of the head of the pancreas with no treatment; 1 case of metastatic breast cancer, 2 cases of malignant melanoma; 1 case of pancreatic cancer and 1 case of basal cell carcinoma with inadequate treatment.

Selected Case Report

A 49-year-old white male was admitted with a 2 month history of ulcer pain, diarrhea, and x-ray proven gastric ulcer. Because of high gastric acid, he was suspected of having Zollinger-Ellison Syndrome. At exploration he was found to have a large tumor at the head of the pancreas extending up to the porta hepatis and into the liver with lymph nodes involved along the greater curvature of the stomach.

Biopsy revealed metastatic islet cell carcinoma of the pancreas. The abdomen was closed without further manipulation and he did well postoperatively. Four months later, he was asymptomatic and an upper GI series demonstrated healing of the ulcer with no evidence of tumor. Three years after the diagnosis was established, he re-entered the hospital with upper GI hemorrhage and was re-explored. At this time he was found to have a duodenal ulcer but there was no evidence of tumor in the head of the pancreas or in lymph nodes. Multiple biopsy specimens from the area were without evidence of tumor. The patient underwent an uneventful vagotomy and pyloroplasty.

Four years after the original exploration he was re-explored for small bowel obstruction. Again there was no demonstrable evidence of tumor. Six years after the diagnosis of islet cell carcinoma was established the patient was alive, well, and asymptomatic.

Carcinoma of Head of Pancreas with Spontaneous Regression

Tchertkoff V; Hauser AD
New York State Journal of Medicine 74(10): Sept 1974; 1814-1817

Extracted Summary

Spontaneous regression of carcinoma of the pancreas, proved histologically, is extremely rare. Such a case in a white male, only twenty-one years of age at the time of onset, fully recovered twelve years later, is reported. The possible immunologic factors affecting such remissions are reviewed and discussed.

Selected Case Report

A twenty-one-year-old white American male clerk was admitted to Metropolitan Hospital on April 20, 1962, owing to abdominal pain, hypotension, and tachycardia. He previously had been at an affiliated hospital with malaise, anorexia, low-grade fever, and jaundice of three months' duration. There was no history of an injection, a transfusion, alcoholism, or drug addiction, or of any exposure to hepatotoxins. The working diagnosis had been infectious hepatitis, and a liver biopsy two weeks prior to this admission had been interpreted as "perichol-angitis." A second liver biopsy just prior to this admission was followed by abdominal pain, a fall in blood pressure, and tachycardia. Emergency treatment for shock was given, and the patient was transferred to Metropolitan Hospital. On admission, his temperature was 100.6°F., pulse 110, respiration 22, blood pressure 88/40, and he was obviously icteric. The abdomen was diffusely tender with involuntary guarding in the right upper quadrant; no abdominal masses were palpable. Surgery was performed on the night of admission for repair of a rent in the liver

that had led to bile peritonitis; at this time a wedge biopsy of the liver was submitted that showed acute cholangitis and pericholangitis.

During the postoperative period the stools remained acholic, and the alkaline phosphatase gradually increased from 15.7 King-Armstrong units on admission to 36 King-Armstrong units; the cholesterol rose from 280 to 375, the serum glutamic oxaloacetic transaminase varied from 20 to 60 units/milliliter, and the thymol turbidity from 0.9 to 1.6 units. There were traces of bile and urobilinogen in the urine. The serum bilirubin was 9.8 mg/100 ml.; the total serum protein was 6.3 gm/100 ml, with 3.4 gm/100 ml albumin and 2.9 gm/100 ml globulin.

Gastrointestinal series findings were interpreted as: "The esophagus, pars cardiac ventriculi, and media of the stomach were normal. There was inconstant spasm and narrowing in the antrum and in the prepyloric region. There was some irregularity along the lesser curvature, possibly suggestive of ulcers or pregastric adhesions."

Three, and again four, weeks after the laparotomy, the patient had attacks of paralytic ileus relieved by decompression with a tube, and he was reoperated on seven weeks after the original surgery. A frozen section of a biopsy of the ampulla of Vater was submitted and diagnosed as poorly differentiated adenocarcinoma. The surgeons were wary, and a T tube was placed in the common duct. Permanent sections and consultations with Arthur Purdy Stout, M.D., confirmed the diagnosis.

Following this surgery, the patient's jaundice diminished, his appetite returned, and he was discharged as improved four weeks postoperatively, to return in three weeks for a Whipple operation.

At his return, the hemoglobin was 8.7 gm/100 ml., the white blood cell count 14,000, with 78% neutrophils, 20% lymphocytes, and 2% eosinophils. The urine had a specific gravity of 1.012 and a trace of albumin, but no bile. The serum bilirubin findings were 1.8 mg/100 ml., the prothrombin time 15 seconds, the alkaline phosphatase 15 King-Armstrong units, the cephalin flocculation findings were negative and the thymol turbidity 0.4 units; the total protein was 6.9 gm/100 ml., with 4.3 gm/100 ml albumin and 2.6 gm/100 ml globulin and the cholesterol 216 mg/100 ml. At surgery, the day after admission, peripancreatic lymph nodes were submitted for frozen section and were found to contain metastatic, poorly differentiated ductal carcinoma. Since the experience here was similar to the Portland survey, the Whipple operation was abandoned, and the patient was discharged after two weeks, improved, and on no specific medication.

At home, slowly but gradually, the icterus faded, and he regained his normal weight in six months and returned to work. One year postoperatively, the local draft board found him apparently so well that they required proof of disability. His local physician (A.D.H.) routinely runs a battery of liver function tests, examines him every six months, and he is now perfectly fit. Currently, he is happily married and rearing a family.