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CALIFORNIA TUMOR TISSUE REGISTRY

LOS ANGELES COUNTY - UNIVERSITY OF SOUTHERN CALIFORNIA MEDICAL CENTER

PROTOCOL

for

MONTHLY STUDY SLIDES

FEBRUARY 1971

PANCREATIC TUMORS

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NAME: M. S.

FEBRUARY 1971 - CASE NO. 1

AGE: 53 SEX: M RACE: White

ACCESSION NO. 11226

CONTRIBUTOR: Leo Kaplan, M.D.
Mount Sinai Hospital
Los Angeles, Calif. 90048

OUTSIDE NO. T-3559-60

TISSUE FROM: Pancreas

CLINICAL ABSTRACT:

History: Patient was admitted 12-8-60 with the history of a sudden postprandial onset of mid epigastric nonradiating pain, without nausea or vomiting. This pain continued for nine days until he saw his physician who noted a left epigastric tender mass. There were no bowel changes nor was blood demonstrated in the stool. Radiographic studies: Upper gastrointestinal tract showed a large retrogastric mass displacing the lesser curvature of the stomach forward and to the left. There was peripheral calcification in the mass. Past history: Cholecystectomy in 1956 (report of findings not known). Diabetes mellitus appeared in 1957 and has continued. Family history: Cancer of the breast in a younger sister. Laboratory findings: Blood count: 13.1 grams hemoglobin with 39% hematocrit, 7300 WBC with 63% segmented neutrophils, 30% lymphocytes, and 2% monocytes. Fasting blood sugar, 133 mg%. On other days, blood sugar ranged between 158 and 226 mg%. Physical examination showed only the presence of a 7 cm. smooth nonpulsating tender mass in the left epigastrium.

SURGERY:

On 12-9-60 laparotomy with resection of a pancreatic mass which occupied the portion of the body and tail of the pancreas and adjacent retroperitoneum. It was fixed to the capsule of the spleen.

GROSS PATHOLOGY:

The specimen weighed 936 grams and measured 13.0 x 6.0 x 11.5 cm. Internally the tumor was soft and focally friable, being granular and yellow with focal areas of necrosis. The tumor involved the pancreas microscopically, with cystic dilatation of ducts alternating with fibrous connective tissue and residual islets of Langerhans.

NAME: M. D. FEBRUARY 1971 - CASE NO. 2

AGE: 2½ yrs. SEX: M RACE: Caucasian ACCESSION NO. 11498

CONTRIBUTORS: J. R. McGrath, M.D.- OUTSIDE NO. S-660-B-61
J. C. Roberts, M.D.-D. B. Lee, M.D.
Little Company of Mary Hospital
Torrance, Calif. 90501

TISSUE FROM: Pancreas

CLINICAL ABSTRACT:

History: Child was seen on a routine pediatric checkup with a complaint of anorexia and poor appetite with questionable slight diarrhea for two weeks. He was to be seen again in a month. During this interval the child had episodes of loose stools, questionable vomiting of coffee-ground material once, anorexia, and one pound weight loss. On reexamination a 2 x 2 inch mass was noted in the right upper quadrant and the child was admitted to the hospital for further study. Radiographic examination showed slight widening of the third portion of the duodenum that was compatible with a space-occupying mass in the head of the pancreas. Laboratory findings: Negative hematological and liver profile studies, without glucosuria.

SURGERY:

Exploratory laparotomy 4-10-61 revealed an ill-defined 3 x 3 inch mass arising in the head of the pancreas extending around the portal vein. Attempt was made to remove all tumor locally, although this was considered difficult to accomplish because of its relationship to the portal vein.

GROSS PATHOLOGY:

One specimen consisted of about 2 grams of white soft papillary tissue fragments submitted for frozen section. The main specimen consisted of a large lobulated pink-gray somewhat papillary hemorrhagic tissue mass weighing about 6 grams.

FOLLOW-UP:

On 6-23-61 the child had a resection of the duodenum, pancreas, and right half of the colon. He continued to do well since then and the only complaint has been that of failing to grow to normal height. When last seen on 9-2-70, he continued to present a growth problem, apparently the result of inadequate enzymes, and had been placed on Viokase. As of this date, there is no evidence of recurrence of tumor.

NAME: E. S.

FEBRUARY 1971 - CASE NO. 3

AGE: 65 SEX: M

ACCESSION NO. 12691

CONTRIBUTOR: W. H. LeCheminant, M.D.
Utah Valley Hospital
Provo, Utah 84601

OUTSIDE NO. 62-UV-9959

TISSUE FROM: Pancreas

CLINICAL ABSTRACT:

History: In February 1959 the patient was first diagnosed as having pancreatitis when he entered the hospital with acute abdominal and chest pain. He was subsequently admitted six times with recurrent bouts of abdominal pain, two of which were associated with an elevated amylase (500). X-rays of the gallbladder showed poor visualization. In April 1960 during the third admission, an abdominal laparotomy was done with a preoperative diagnosis of recurrent pancreatitis with cholecystitis. At this operation a cyst 5.0 cm. in diameter was found on the inferior surface of the body of the pancreas. This was considered secondary to chronic inflammation; neither gallbladder nor cyst were removed. In November 1961 an upper gastrointestinal series revealed a deformity of the duodenal bulb which was considered either a scar pit or a shallow active ulcer crater. In November 1962 the patient was again admitted for abdominal pain and gastrointestinal bleeding. Radiographic examination: GI series again revealed the duodenal bulb deformity and also a hiatus hernia; cholecystogram was normal.

SURGERY:

Excision of cyst, body and tail of pancreas; vagotomy and posterior gastrojejunostomy; repair of hiatus hernia (November 1962).

GROSS PATHOLOGY:

Specimen consisted of a cystic structure measuring 7.5 x 6.0 x 4.0 cm., partially covered by adhesions. On section, the cyst was filled with thick, yellow, gray tenacious mucus and the wall varied from 0.1 to 1.0 cm. Irregular papillary masses covered with mucus projected into the lumen.

FOLLOW-UP:

Since 1962 the patient has had several hospital admissions for abdominal pain (with normal amylase and lipase tests) which has been diagnosed as gastritis or cholecystitis. In January 1964 a glucose tolerance test showed the one-hour value to be 322 mgm % and the two-hour, 105 mgm %. In February 1969 a two-hour postprandial blood sugar test was 106 mgm %. He was last discharged from the hospital 11-24-70 with the final clinical diagnoses of diabetes mellitus; pneumonia, left lower lung; and congestive heart failure with complicating atrial fibrillation. On this admission, he had a two-hour postprandial blood sugar of 290 mgm %.

NAME: L. A. FEBRUARY 1971 - CASE NO. 4

AGE: 31 SEX: F RACE: Caucasian ACCESSION NO. 12913

CONTRIBUTOR: Emmett B. Reilly, M.D. OUTSIDE NO. A-44-63
Orange County General Hospital
Orange, Calif. 92668

TISSUE FROM: Pancreas

CLINICAL ABSTRACT:

History: Patient entered the hospital with signs and symptoms related to occlusive vascular disease in the brain. Her hospitalization was complicated by apparent progression of neurologic change and she expired 2-4-63. An incidental finding at autopsy was a tumor of the pancreas.

AUTOPSY FINDINGS:

In the tail of the pancreas was a 4 x 4 x 4.5 cm. mass, sharply defined from the surrounding fat and from the pancreas in its more normal portions. The tumor was pale gray with a few yellow flecks on the surface. There were small cystic areas measuring 1 to 2 mm.

NAME: E. McD. FEBRUARY 1971 - CASE NO. 5

AGE: 81 SEX: F RACE: Caucasian ACCESSION NO. 10066

CONTRIBUTOR: R. M. Failing, M.D. OUTSIDE NO. A-62-111
Santa Barbara Cottage Hospital
Santa Barbara, Calif.

TISSUE FROM: Pancreas

CLINICAL ABSTRACT:

History: In August 1958, patient was admitted to the hospital for evaluation of a six-month history of episodes of sudden unconsciousness, which lasted for 3 to 5 minutes, occasionally associated with convulsive movements and perspiration. In May 1958 she was found comatose in her home, and responded immediately to an injection of 50% glucose. She was placed on a high carbohydrate diet, but had episodes of weakness and fainting, reversed by oral sugar and fruit juices. During several periods of coma blood sugar ranged from 37 to 55 mg %. Hemogram and urinalysis were normal. At the time of admission fasting blood sugar was 93% in the morning and by evening it was 33 mg %. Physical examination was not remarkable except for moderate obesity.

SURGERY:

Exploratory laparotomy with partial resection of omentum 8-27-58. The omentum was found to be extensively seeded with tumor nodules. The pancreas, which was palpated but not seen, seemed large and firm. Abdominal cavity contained 500 ml. of clear fluid.

GROSS PATHOLOGY:

The specimen consisted of two sections of omental tissue weighing 170 grams. A number of firm gray-white tumor nodules measuring up to 2 cm. were scattered throughout the omentum.

FOLLOW-UP:

In 1960, two years following surgery, she had gained 25 pounds, with occasional episodes of clinical hypoglycemia controlled by diet. She consumed tremendous amounts of food to offset insulin production. There was no evidence of ascites. In August 1961 she was hospitalized for a comminuted fracture of the humerus, which occurred during a hypoglycemia episode. She was readmitted in August 1962 because of marked abdominal distention and repeated hypoglycemic episodes requiring large amounts of IV glucose. Paracentesis was done to withdraw several liters of abdominal fluid. She expired 8-19-62, four and a half years after the onset of symptoms.

AUTOPSY FINDINGS:

There was extensive peritoneal and pleural tumor seeding with involvement of mesenteric and pulmonary hilar lymph nodes. There was also metastatic tumor in the left adrenal gland. The primary tumor was found in the head of the pancreas. It was well circumscribed and tumor emboli were found in vascular spaces.

NAME: M. M.

FEBRUARY 1971 - CASE NO. 6

AGE: 53 SEX: M RACE: Caucasian

ACCESSION NO. 14225

CONTRIBUTOR: N. L. Morgenstern, M.D.
Kaiser Foundation Hospital
Oakland, Calif. 94611

OUTSIDE NO. A-65-69

TISSUE FROM: Pancreas

CLINICAL ABSTRACT:

History: Patient was admitted to the hospital 2-12-65 with symptoms of vague epigastric distress, abdominal distention, pain, nausea, and vomiting of six weeks duration. Patient had also noted acholic stools and dark urine. He had typhoid in 1950 with sequela. Physical examination showed considerable abdominal distention with tympany, palpable liver, epigastric tenderness, absence of a definitely palpable abdominal mass, and icterus. Laboratory studies: Hemogram essentially normal; stool for urobilinogen, 480 Ehrlich units/100 grams; 4-plus bile in urine; urine urobilinogen, positive in 1:20 dilution and negative in 1:40 dilution. Cephalin-flocculation, 2-plus in 48 hours; alkaline phosphatase 105 King-Armstrong units; thymol turbidity, 1.5 units; total bilirubin, 12.2 mg % with 7.6 mg % direct; SGOT, 106 units; total serum protein, 4.9 gm. % with 2.95 gm. % albumin. Radiographic examination: KUB films showed no abnormal calcification.

SURGERY:

Exploratory laparotomy 2-19-65. The entire liver was almost totally replaced by tumor. Primary site of tumor was thought to be in the pancreas. One of the tumor nodules in the liver was biopsied.

FOLLOW-UP:

Patient did poorly postoperatively and died three days following surgery.

AUTOPSY FINDINGS:

The liver weighed 4200 gms. and was diffusely infiltrated by firm granular gray-tan nodules measuring from 3 to 6 cm. in diameter. The pancreas weighed 120 grams and the head was not enlarged. The body and tail of the pancreas was firm, nodular, and yellow-white with diffuse loss of the normal parenchymal appearance. This area was enlarged to twice that of normal size. There were metastases in the lungs, abdominal lymph nodes, and visceral serosa.

NAME: E. H.

FEBRUARY 1971 - CASE NO. 7

AGE: 70 SEX: M RACE: Caucasian

ACCESSION NO. 14236

CONTRIBUTOR: Richard R. Kelley, M.D.
Queen's Hospital
Honolulu, Hawaii 96813

OUTSIDE NO. 122-546C

TISSUE FROM: Head of pancreas

CLINICAL ABSTRACT:

History: Patient had complained of an onset of mid-upper abdominal pain with melena shortly before admission to the hospital. Radiographic examination: X-ray revealed only evidence of a dilated biliary tree.

SURGERY:

Exploratory laparotomy with excision of head of pancreas and adjacent duodenum, 3-30-65. At surgery, a 5 cm. diameter tumor was found between the duodenum and the pancreas, with compression of the pancreatic head and common bile duct.

GROSS PATHOLOGY:

The specimen consisted of a rounded encapsulated red soft mass measuring 5.5 x 5.5 x 7 cm. The tumor capsule was from 1 to 3 mm. thick. The periphery of the tumor was attached to the muscularis of the duodenum. Ampulla of Vater, common bile duct segment, and pancreatic ducts were unremarkable with exception of the ducts which were somewhat compressed by the tumor.

FOLLOW-UP:

The patient was seen in 1967 by his private physician for bronchopneumonia, hypertensive cardiovascular disease, and pancreatic insufficiency. He was admitted to the Wahiawa General Hospital, Hawaii, and expired 9-1-67. No autopsy was done.

NAME: H. G.

FEBRUARY 1971 - CASE NO. 8

AGE: 61 SEX: M RACE: Caucasian

ACCESSION NO. 15387

CONTRIBUTOR: James W. Decker, M.D.
Washoe Medical Center
Reno, Nevada 89502

OUTSIDE NO. S-5773-66

TISSUE FROM: Duodenum

CLINICAL ABSTRACT:

History: Patient was admitted 11-14-66 with a two-week history of a 10-pound weight loss. He had also noticed symptoms of anorexia, constipation, and restlessness. His only previous serious illness was that of pneumonia in 1918 and 1945. Physical examination revealed no significant abnormality. Laboratory findings: Hgb. 14.3; hematocrit, 43%; WBC, 10,900, with normal differential. Urinalysis and VDRL negative. Serum glucose 97 mgs %. Stool, occult blood, positive. Two-hour postprandial sugar, 131 mgs %. Serum alkaline phosphatase, 1.6 units per ml. B.S.P. 11.2%. Radiographic examination: Barium enema study showed some scalloping deformity of the cecum of questionable significance. Upper GI series revealed persistent deformity of the duodenal cap, suggesting ulceration along the greater curvature aspect of the cap. Patient was discharged and readmitted 11-23-66 because of persistent anorexia and weight loss. On this admission, laboratory findings were as follows: Hgb 13.2, hematocrit 41%; serum lucine aminopeptidase, 120 units (normal, 70-200). Stool, occult blood positive. B.S.P. 18.8% retention. Total protein, 6.9 grams % with albumin 4.2 grams %. Prothrombin time 63%; cephalin flocculation negative. Repeat radiographic examinations were unremarkable.

SURGERY:

Subtotal gastric resection with Billroth II closure done 12-7-66. At surgery an indurated polypoid mass was found in the first portion of the duodenum. The liver was unremarkable except for what was thought to be a small hemangioma on the surface of the right lobe. Regional lymph nodes were unremarkable. Pancreas was not enlarged. A Silverman needle biopsy was attempted of the small lesion in the liver.

GROSS PATHOLOGY:

The main specimen consisted of a segment of stomach and duodenum measuring 8 cm. at the lesser curvature and 15 cm. at the greater curvature, which had a poorly defined, friable, elevated 2.4 cm. granular lesion on its surface. On sectioning, there was a glistening gray firm submucosal tissue mass extending up to 3.5 cm. in diameter at the pylorus. No additional lesions were noted.

FOLLOW-UP:

The patient had a gradual weight gain and increase in well-being until early March 1967. He then developed vague abdominal discomfort and pain associated with bowel movements, became anorexic, and started to lose weight. He was readmitted 3-14-67; physical examination revealed bilateral elevation of the diaphragm only. An upper GI series revealed some narrowing of the gastroenterostomy stoma. Chest films showed streaky densities at the left base; barium enema revealed diverticulosis. Laboratory findings were unremarkable. On 3-18-67 patient was taken to surgery for revision of the stoma and exploration. The peritoneum and liver were found to be studded with gray-white nodules; the pancreas appeared normal to palpation; and the gastroenterostomy stoma had tumors around it. Biopsies were taken of a nodule and tissue. Patient was treated with 5-fluorouracil but he progressively deteriorated and expired 4-1-67. Autopsy was not done.

NAME: G. T. B.

FEBRUARY 1971 - CASE NO. 9

AGE: 32 SEX: M RACE: Caucasian

ACCESSION NO. 15618

CONTRIBUTOR: Seth L. Haber, M.D.
Kaiser Foundation Hospital
Santa Clara, Calif. 95051

OUTSIDE NO. 67-2859

TISSUE FROM: Pancreas

CLINICAL ABSTRACT:

History: About six months prior to admission the patient first complained of awakening at night with severe epigastric pain, relieved by milk or antacids. About six weeks prior to admission, this pain was also noted during the daytime accompanied with intermittent melena. His condition was diagnosed as a peptic ulcer which did not respond to medical treatment. The family history was that his sister had a parathyroid adenoma removed some years previously. Radiographic examination: An upper GI series done three weeks before admission was said to demonstrate a peptic ulcer. There was no history of renal stones or mental change. Laboratory findings: Serum calcium ranged from 9.6 to 12.9 mg %; potassium from 2.9 to 3.5 mg %; sodium 133 mg %; chloride from 35 to 97 mEq; phosphorous from 2.1 to 3.6 mg %; serum amylase 96 units. Glucose tolerance test: fasting blood glucose, 41 mg %; one-hour level, 340 mg %; two-hour level, 252 mg %; three-hour level 63 mg %. He had milk hypokalemic alkalosis. After a histamine injection of 3.12 mg, the gastric acidity increased from 9.7 mEq (normal, 5.4) to 32 mEq (normal, 25).

SURGERY:

Hemipancreatectomy, total gastrectomy, and splenectomy 5-18-67. The surgeon stated he was able to palpate a nodule at the dome of the liver, which he was unable to biopsy, and that a walnut-sized tumor was palpated in the head of the pancreas.

GROSS PATHOLOGY:

The specimen from the duodenum consisted of a 1.0 cm. mucosal disc with an underlying 0.9 cm. gray-tan nodule infiltrating the muscularis. The major specimen consisted of an en bloc resection of the stomach with attached omentum, body and tail of the pancreas, and spleen. The pancreas was 11.0 cm. long. At its proximal end, within 0.4 cm. of the resected edge was an up to 4.0 x 3.5 cm. well-circumscribed homogeneous gray-tan tumor that bulged from the cut surface. There were several other 0.2 to 1.0 cm. nodules scattered in the rest of the pancreas. The rugal markings of the stomach were accentuated without ulceration.

FOLLOW-UP:

Following surgery, the patient had documented hypoglycemic episodes, treated with Diazoxide. A fasting blood sugar on several occasions was 35 mg %; a glucose tolerance curve showed a FBS of 36 mg %; one-hour 106 mg %; two-hour 85 mg %; three-hour 73 mg %; four-hour 44 mg %; and a five-hour 51 mg %. He had persistent hypercalcemia and hypophosphatemia. On 9-27-67, two parathyroid adenomas were excised from the left neck. He did well following this surgery. Serum calciums have remained within normal limits and his hypoglycemia continues well- controlled (as of 3-24-70),

NAME: G. M. FEBRUARY 1971 - CASE NO. 10

AGE: 59 SEX: M ACCESSION NO. 15798

CONTRIBUTOR: Roger H. Fuller, M.D.
Tri-City Hospital
Oceanside, Calif. 92054

OUTSIDE NO. 15798

TISSUE FROM: Pancreas

CLINICAL ABSTRACT:

History: On 2-25-67 the patient had a severe sudden onset of predominantly left-sided abdominal pain for which he was hospitalized with the possibility of diverticulitis. Radiographic examination included barium enema, upper GI series, gallbladder, and an IVP which revealed only diverticuli in the duodenum. He was discharged for observation with diet control. Discomfort continued in the left upper quadrant and lower rib cage, and he was readmitted 5-11-67 for further evaluation. The patient indicated he had noticed some possible elevation of the lower left rib cage. Radiographic examination of the chest demonstrated definite elevation of the left hemidiaphragm.

SURGERY:

Exploratory laparotomy with subtotal pancreatectomy and splenectomy and partial colectomy done on 5-12-67. At surgery an extremely large mass was found involving the tail and body of the pancreas, spleen, and transverse colon.

GROSS PATHOLOGY:

The specimen consisted of the spleen and attached portion of pancreas along with a 10 cm. length of large bowel. The inferior pole of the spleen and tail of pancreas were involved by a large cyst about 10 to 12 cm. in diameter, having a 3 to 4 mm. thick, fibrous wall. A segment of colon about 10 cm. long was attached to the inferior surface of the cystic mass. On section, the body and tail of the pancreas contained a tumor that formed the medial wall of the cyst.

FOLLOW-UP:

Patient had a fairly good postoperative course and was discharged 5-22-67. Recent note from the contributor indicates that the patient expired 7-17-67; autopsy was not performed.

NAME: V. W.

FEBRUARY 1971 - CASE NO. 11

AGE: 68 SEX: M RACE: Caucasian

ACCESSION NO. 17922

CONTRIBUTOR: W. E. Carroll, M.D.
Santa Barbara Cottage Hospital
Santa Barbara, Calif. 93105

OUTSIDE NO. S-69-204

TISSUE FROM: Pancreas

CLINICAL ABSTRACT:

History: Patient was transferred to this hospital for evaluation of recurrent upper abdominal discomfort. His medical history dates back to about 1963 when he developed persistent epigastric pain associated with nausea. In 1965 he had a subtotal gastrectomy and continuity reestablished with a Bilroth I gastroduodenostomy. Since this surgery he had been hospitalized four times for vomiting, occasional hematemesis, and was treated generally with antacids, milk, and diet. Before his current admission he had had a 22-pound weight loss, with occasional diarrhea, and regurgitation of food. He used Darvon for pain as well as tranquilizers. In August 1966 he developed extreme pylorospasm. tenderness, and gastric retention, which was felt to be due to recurrent active peptic ulcer disease. In February 1968, further gastric resection was done, with Bilroth I anastomosis. There was a large stomal ulcer 1-1/2 cm. in diameter present, projecting anteriorly from the stoma. By December 1968 the marginal ulcer seemed to have healed satisfactorily but a hiatal hernia was noted on radiographic examination. Epigastric pain persisted and the patient again admitted on 1-1-69. Laboratory studies: SGOT 145 units; alkaline phosphatase 19.5; total protein 6.3 grams %, albumin 3 grams %; BSP test 10% retention. Hgb 12.2 grams and red cell count 4.12 million; white count 7,500, differential normal. Coagulation studies showed a prothrombin time of 80%; bleeding and clotting times were normal. A liver scan showed multiple rounded defects and a percutaneous liver biopsy showed a neoplasm in the liver. Gastric acid studies showed a basal acid secretion of 2.51 mEq per hour and a maximally stimulated output of 11.53 mEq, giving a BAO/MAO ratio of 21%. Gastroscopy revealed prominent rugal folds. Further laboratory studies showed a 180 mg % cholesterol; 6.75 mcg % protein bound iodine; 125 mg % two-hour postprandial blood sugar. Stool examinations on two occasions were a trace and 2-plus positive for occult blood.

SURGERY:

Total gastrectomy and distal pancreatectomy with an esophagojejunostomy done 1-10-69. The distal half of the pancreas was replaced with a hard, irregular tumor. The liver was considerably enlarged and both lobes contained many tumor nodules measuring up to 6 cm. The spleen was about twice normal size.

GROSS PATHOLOGY:

Specimen consisted of a portion of pancreas, the stomach, and spleen. The pancreatic tissue weighed 40 gm. and scattered throughout were a number of gray-white tumor nodules varying from 0.4 to 3.5 mm. One of the nodules completely filled a duct. The stomach showed a prominent mucosa. The spleen weighed 180 gm. and had a thickened hemorrhagic capsule.

POSTOPERATIVE COURSE:

His immediate postoperative course was complicated by a wound abscess that healed. He had periods of confusion associated with elevation of blood ammonia (50 to 109 mcg %). He was mildly diabetic which was controlled with small amounts of insulin. He showed a gradual deterioration and weight loss, with continued enlargement of the liver, with a liver scan showing decreased function. Serum chemistry on 4-30-69 showed normal electrolytes. Total protein 6.65 gms.%, albumin 3.1 gms %, calcium 8.1 mg %; alkaline phosphatase 69 K-A units with total bilirubin 0.8 mg %; SGOT 120 units. Red cells continued macrocytic despite repeated vitamin B-12. Stool examinations ranged from trace to 4-plus occult blood. Deterioration continued and he died 5-10-69.

AUTOPSY FINDINGS:

The tail of the pancreas weighed 50 grams and showed no evidence of hemorrhage, tumor, trauma, or necrosis. The liver weighed 5,000 grams and contained massive gray gritty tumor nodules, showing hemorrhage and necrosis. Approximately 90% of the liver was replaced with tumor, which had a pseudoglandular pattern mostly in nests and cords. There was partial obstruction of the jejunum by fibrous adhesions.

NAME: A. W.

FEBRUARY 1971 - CASE NO. 12

AGE: SEX: F RACE: Caucasian

ACCESSION NO. 17970

CONTRIBUTOR: John Bubien, M.D.
Riverside General Hospital
Riverside, Calif. 92503

OUTSIDE NO. S-365-69

TISSUE FROM: Pancreas

CLINICAL ABSTRACT:

History: Patient was admitted to the hospital 2-16-69, with a sudden onset of crampy right flank pain radiating to the right groin and inner thigh, accompanied by nausea and vomiting. She had a five-day history of anorexia and lethargy preceding admission. She revealed no evidence of hypoglycemic episodes nor peptic ulcer disease. Physical examination revealed nonlocalized tenderness at the right flank, right CVA area, and right lower quadrant, with no palpable masses. Radiographic examination: Abdominal x-rays and IVP showed a right ureteral calculus causing obstruction, and chest film revealed moderate cardiomegaly. Laboratory studies: Urinalysis, 4-plus bacteria and proteus cultured. Hgb. 15.8, WBC 20,300 with 66% segs and 22% stabs. On 2-19-69 a cystoscopy was done and the right ureteral calculus removed. Two days later the patient developed severe right upper quadrant pain with tenderness and ill-defined palpable mass in the right upper quadrant. At this time, the white count was 9,500, bilirubin was 4.7 mg % with 2 mg % direct.

SURGERY:

On 2-22-69 a cholecystectomy and common duct exploration was done for acute cholecystitis, cholelithiasis, and choledocholithiasis. At surgery, a large tumor was found arising from the head of the pancreas and pushing up the overlying mesentery.

GROSS PATHOLOGY:

Specimen was an encapsulated firm mass 6 x 5 x 5 cm., which on section was a variegated tan-gray to red. A small thin area of pancreas was attached to one end.

FOLLOW-UP:

Additional laboratory studies: Normal serum calcium and phosphorus with absence of free gastric acid. Glucose tolerance test: two-hour, 144 mg %; three-hour, 136 mg %. X-rays of sella turcica were normal. On 10-27-69 a parathyroid adenoma was removed from the anterior mediastinum. Serum calcium dropped from 12.2 mg % to 8.6 mg %. There was no evidence of recurrence of pancreatic tumor. Patient was last seen on 10-5-70 at which time she had no specific complaints; at this time the serum calcium was 10.2 mg %.

STUDY GROUP CASES

for

FEBRUARY 1971

CASE NO. 1. ACCESSION NO. 11226. L. Kaplan, M.D., Contributor

LOS ANGELES:

Islet cell tumor (malignant)--7
Adenocarcinoma--7

SAN FRANCISCO:

Adenocarcinoma of pancreas, poorly differentiated--3
Islet cell arcinoma--3
Acinic cell carcinoma--4

CENTRAL VALLEY:

Islet cell tumor (malignant)--10
Non-islet cell tumor (benign)--2

OAKLAND:

Carcinoma--13
Malignant islet cell tumor--4

WEST LOS ANGELES:

Pleomorphic undifferentiated carcinoma--8

SOUTH BAY:

Poorly differentiated adenocarcinoma--2
Undifferentiated carcinoma--2
Islet cell tumor--2

SANTA BARBARA:

Acinic cell carcinoma--2
Islet cell carcinoma--1

INLAND (SAN BERNARDINO):

Adenocarcinoma--6
Islet cell tumor--3

SEATTLE:

Acinar carcinoma of pancreas--4
Islet cell carcinoma--2

FILE DIAGNOSIS: Probable malignant islet cell tumor 1570-8150

February 1971

CASE NO. 2. ACCESSION NO. 11498. R. L. McGrath, M.D., Contributor

LOS ANGELES:

Islet cell tumor--15

SAN FRANCISCO:

Pancreatoblastoma--4
Islet cell tumor--8

CENTRAL VALLEY:

Lymphoepithelial lesion--1
Benign islet cell tumor--8
Malignant islet cell tumor--4

OAKLAND:

Non-functional islet cell carcinoma with focal squamous metaplasia--13
Tumor, exocrine pancreas--2

WEST LOS ANGELES:

Unclassified neoplasm--8

SOUTH BAY:

Islet cell tumor--6

SANTA BARBARA:

Islet cell tumor--2

INLAND (SAN BERNARDINO):

Undifferentiated carcinoma--5
Islet cell tumor--4

SEATTLE:

Islet cell carcinoma, biphasic--6

FILE DIAGNOSIS: Islet cell tumor 1570-8150

February 1971

CASE NO. 3. ACCESSION NO. 12691. W.H. Le Cheminant, M.D., Contributor

LOS ANGELES:

Mucinous cystadenoma--14
Mucinous cystadenoma with carcinoma in situ--1

SAN FRANCISCO:

Cystadenoma, benign--12

CENTRAL VALLEY:

Cystic neoplasm, benign--9½
Non-neoplastic cyst, benign--3½

OAKLAND:

Cystadenoma--12
Retention cyst--5

WEST LOS ANGELES:

Mucinous cystadenoma--6
Mucinous cystadenocarcinoma--2

SOUTH BAY:

Mucinous cystadenocarcinoma, grade 1--3
Mucinous cystadenoma--3

SANTA BARBARA:

Pseudocyst--1
Cystadenoma--2

INLAND (SAN BERNARDINO):

Cystadenoma--6
Papillary cystadenocarcinoma, low grade--3

SEATTLE:

Papillary cystadenoma of pancreas--6

FILE DIAGNOSIS: Mucinous cystadenoma 1570-8470

February 1971

CASE NO. 4. ACCESSION NO. 12913. E.B. Reilly, M.D., Contributor

LOS ANGELES:

Multiloculated cystadenoma--15

SAN FRANCISCO:

Cystadenoma--10
Lymphangioma--2

CENTRAL VALLEY:

Papillary cystadenoma--9
Lymphangioma--3
Cystic pancreas--1

OAKLAND:

Cystadenoma--17

WEST LOS ANGELES:

Papillary cystadenoma (microlocular)--8

SOUTH BAY:

Microcystic cystadenoma--6

SANTA BARBARA:

Cystadenoma--3

INLAND (SAN BERNARDINO):

Papillary cystadenoma--9

SEATTLE:

Papillary cystadenoma of pancreas--4
Mesothelioma--2

FILE DIAGNOSIS: Cystadenoma 1570-8440

February 1971

CASE NO. 5. ACCESSION NO. 10066. D. R. Dickson, M.D., Contributor

LOS ANGELES:

Malignant islet cell tumor--15

SAN FRANCISCO:

Islet cell carcinoma--7
Adenocarcinoma, mucin secreting--5

CENTRAL VALLEY:

Functioning islet cell tumor--13

OAKLAND:

Malignant islet cell tumor--17

WEST LOS ANGELES:

Functional islet cell carcinoma--8

SOUTH BAY:

Adenocarcinoma--5
Islet cell carcinoma--1

SANTA BARBARA:

Islet cell carcinoma--8
Adenocarcinoma--1

INLAND (SAN BERNARDINO):

Islet cell carcinoma--8
Adenocarcinoma--1

SEATTLE:

Islet cell tumor--6

FILE DIAGNOSIS: Malignant islet cell tumor 1570-8150

February 1971

CASE NO. 6. ACCESSION NO. 14225. N.L. Morgenstern, M.D., Contributor

LOS ANGELES:

Anaplastic spindle cell carcinoma--8
Spindle cell sarcoma--1
Spindle cell variant of epidermoid carcinoma--4

SAN FRANCISCO:

Anaplastic carcinoma--7
Rhabdomyosarcoma--2
Sarcoma--3

CENTRAL VALLEY:

Pleomorphic carcinoma--12
Myosarcoma--1

OAKLAND:

Carcinoma, spindle cell type--15
Pleomorphic carcinoma--2

WEST LOS ANGELES:

Pleomorphic spindling anaplastic carcinoma--7
Liposarcoma--1

SOUTH BAY:

Spindle cell carcinoma--6

SANTA BARBARA:

Spindle cell carcinoma--3

INLAND (SAN BERNARDINO):

Spindle cell carcinoma--8
Rhabdomyosarcoma--1

SEATTLE:

Pleomorphic carcinoma of pancreas--6

FILE DIAGNOSIS: Spindle cell carcinoma 1570-8033

February 1971

CASE NO. 7. ACCESSION NO. 14236. R.R. Kelley, M.D., Contributor

LOS ANGELES:

Paraganglioma--9
Islet cell tumor--4

SAN FRANCISCO:

Non-chromaffin paraganglioma--12

CENTRAL VALLEY:

Pleomorphic carcinoma--5
Glomus tumor--3
Islet cell tumor--4
Acinic cell carcinoma--1

OAKLAND:

Non-functional islet cell tumor--17

WEST LOS ANGELES:

Islet cell tumor--2
Chemodectoma (paraganglioma)--6

SOUTH BAY:

Chemodectoma--4
Malignant vascular tumor--1
Islet cell tumor--1

SANTA BARBARA:

Islet cell tumor--3

INLAND (SAN BERNARDINO):

Chemodectoma--6
Hemangiopericytoma--3

SEATTLE:

Islet cell tumor--5
Nonchromaffin paraganglioma--1

FILE DIAGNOSIS: Paraganglioma 1570-8681

February 1971

CASE NO. 8. ACCESSION NO. 15387. J.W. Decker, M.D., Contributor

LOS ANGELES:

Adenocarcinoma of pancreas possibly arising in heterotopic pancreas--15

SAN FRANCISCO:

Adenocarcinoma of duodenum--12
(questionable Brunner's gland origin)

CENTRAL VALLEY:

Duodenal adenocarcinoma--9
Carcinoma of ectopic pancreas--4

OAKLAND:

Adenocarcinoma in duodenum--17

WEST LOS ANGELES:

Polypoid adenocarcinoma of duodenum (primary)--3
Polypoid adenocarcinoma of duodenum (probably arising in ectopic pancreatic ducts)--5

SOUTH BAY:

Adenocarcinoma--6

SANTA BARBARA:

Carcinoma of duodenal papilla--1
Carcinoma of Brunner's glands--2

INLAND (SAN BERNARDINO):

Adenocarcinoma (probably arising in ectopic pancreas)--9

SEATTLE:

Carcinoma of pancreatoduodenal area--4
Adenocarcinoma in heterotopic pancreas--1

FILE DIAGNOSIS: Adenocarcinoma of pancreas possibly arising in heterotopic pancreas

1570-8143

February 1971

CASE NO. 9. ACCESSION NO. 15618. S.L. Haber, M.D., Contributor

LOS ANGELES:

Malignant islet cell tumor, functional--15

SAN FRANCISCO:

Islet cell tumor, non-Beta cell associated with E-Z syndrome--12

CENTRAL VALLEY:

Islet cell tumor, functional--13

OAKLAND:

Islet cell tumor with adenomatosis--17

WEST LOS ANGELES:

Islet cell adenoma with multiple adenomas and peptic ulcer (Zollinger-Ellison Syndrome)--8

SOUTH BAY:

Islet cell tumor--6

SANTA BARBARA:

Islet cell tumor--3

INLAND (SAN BERNARDINO):

Functional islet cell tumor--9

SEATTLE:

Islet cell tumor--5

FILE DIAGNOSIS: Malignant islet cell tumor 1570-8150

February 1971

CASE NO. 10. ACCESSION NO. 15798. W.E. Cowell, M.D., Contributor

LOS ANGELES:

Undifferentiated carcinoma--12
Lymphoma--3

SAN FRANCISCO:

Hemangioendothelial sarcoma--3
Metastatic clear cell carcinoma--1
Pleomorphic carcinoma--6
Hodgkin's disease--1

CENTRAL VALLEY:

Undifferentiated carcinoma--13

OAKLAND:

Carcinoma--16
Reticulum cell sarcoma--1

WEST LOS ANGELES:

Undifferentiated carcinoma--3
Reticulum sarcoma--5

SOUTH BAY:

Undifferentiated carcinoma--4
Undifferentiated malignant tumor--1
Adenocarcinoma--1

SANTA BARBARA:

Undifferentiated carcinoma--2
Angiosarcoma--1

INLAND (SAN BERNARDINO):

Anaplastic adenocarcinoma--5
Lymphoma--3
Liposarcoma--1

SEATTLE:

Undifferentiated carcinoma of pancreas--4
Hodgkins disease--1

FILE DIAGNOSIS: Undifferentiated carcinoma 1570-8013

February 1971

CASE NO. 11. ACCESSION NO. 17922. W.E. Carroll, M.D., Contributor

LOS ANGELES:

Malignant islet cell tumor--15

SAN FRANCISCO:

Carcinoid tumor--1
Islet cell tumor-11

CENTRAL VALLEY:

Islet cell carcinoma--13

OAKLAND:

Malignant islet cell tumor--17

WEST LOS ANGELES:

Islet cell carcinoma with Zollinger-Ellison Syndrome--8

SOUTH BAY:

Islet cell carcinoma--6

SANTA BARBARA:

Islet cell carcinoma--3

INLAND (SAN BERNARDINO):

Islet cell carcinoma--9

SEATTLE:

Islet cell tumor--5

FILE DIAGNOSIS: Malignant islet cell tumor 1570-8150

February 1971

CASE NO. 12. ACCESSION NO. 17970. J. Bubien, M.D., Contributor

LOS ANGELES:

Islet cell tumor--15

SAN FRANCISCO:

Islet cell tumor--12

CENTRAL VALLEY:

Islet cell tumor with hyaline degeneration--13

OAKLAND:

Non-functional islet cell tumor with adenomatosis--17

WEST LOS ANGELES:

Islet cell tumor (adenoma, papillary variant)--8

SOUTH BAY:

Islet cell tumor--6

SANTA BARBARA:

Islet cell tumor--3

INLAND (SAN BERNARDINO):

Islet cell adenoma--9

SEATTLE:

Islet cell tumor--5

FILE DIAGNOSIS: Islet cell tumor 1570-8150