TUMOR TISSUE REGISTRY

LOS ANGELES COUNTY HOSPITAL

****

PROTOCOL

FOR

MONTHLY SLIDES

AUGUST 1964

TUMORS OF THE ENDOCRINE GLAND

NAME: H. F. AUGUST 1964 - CASE NO. 1

AGE: 56 SEX: Female RACE: Caucasian ACCESSION NO. 11719

CONTRIBUTOR: Leonard R. Ortega, M. D. Outside No. WS-61-746
Washington Township Hospital
Fremont, California

TISSUE FROM: Pancreas

CLINICAL ABSTRACT:

This woman had a sudden onset of convulsive seizure occurring in the morning, in some instances followed by prolonged unconsciousness. Physical examination revealed a palpable mass in the breast with enlarged axillary nodes on the left side which was tentatively diagnosed as "carcinoma of the breast with axillary metastases." During hospitalization, it was noted that the patient's fasting blood sugar was consistently below 50 mg. percent, and at one time was as low as 32 mg. percent. A radical left mastectomy was done, proving a diagnosis of "duct carcinoma of the breast with metastasis in several axillary nodes." Following recovery from the mastectomy, the patient was admitted again to the hospital in unconsciousness. The blood sugar was 35 mg. percent and the symptoms were relieved by infusion of intravenous glucose. The recovery was prompt and dramatic.

SURGERY:

On June 14, 1961, a laparotomy was done and a large tumor was removed, together with the spleen from the tail of the pancreas.

GROSS PATHOLOGY:

The specimen was a small piece of pancreatic tissue which was attached to a roughly oval-shaped mass, 7.0 cm. in maximum diameter. The mass and small pancreatic attachment weighed 168 grams. The surface of the mass was faintly lobated and a yellowish-gray color. There was an apparently intact, thin fibrous capsule covering the entire surface. The cut section showed a mottled, rubbery but firm gray, yellow tan tissue, which had some stony hard, calcified areas in an eccentric position. Near the periphery of the mass, there were some lobulated areas surrounded by firm, connective tissue septa. These areas were more yellowish than the central part. Attached to the specimen by a thin fibrous pedicle was a spleen. The spleen was normal in size and shape. It weighed 80 grams. There were no apparent defects on the capsular surface or on the cut surface.

FOLLOW-UP:

The patient made an uneventful recovery from the operation and since that time has had no recurrence of the hypoglycemic episodes. Recent follow-up information not received.

NAME: K. K. AUGUST 1964 - CASE NO. 2

AGE: 50 SEX: Female RACE: Caucasian ACCESSION NO. 12928

CONTRIBUTOR: R. D. Lewis, M. D. Outside No. S 4875
Huntington Memorial Hospital
Pasadena, California

TISSUE FROM: Adrenals

CLINICAL ABSTRACT:

History: One year prior to surgery, at about the time of menopause, the patient noted increased weight (10 lbs.) and swelling of the face, neck, hands, abdomen and legs. These symptoms more or less persisted, although some control of weight and swelling was obtained by a low sodium diet and thyroid and "female" hormones. She felt sluggish and slept less than before. She complained mainly of swelling of the abdomen and legs. There was some increase in hair on the face; easy bruising of the arms was noted. She was conscious of developing a hump-like area over her posterior cervical and upper dorsal spine. Occasional episodes of right subscapular pain, lasting 15 minutes, had occurred for several years. Four years ago, following x-ray studies, she was told she had gallstones and also at one time that she had an ulcer. At that time she received injections, which were probably estrogen, and/or androgen preparations. There were also swelling and increase in hair noted then, and diuretics were used to control the swelling.

Physical examination was negative except for a puffiness of the face and fullness in the lateral cervical areas, with an appearance of a "buffalo hump," over the upper thorax and lower neck region. Blood pressure was 144/80.

Various x-ray examinations showed slight demineralization of lumbar vertebral bodies; skull and pelvis appeared normal. Two gallstones were noted in the abdominal film. Intravenous pyelogram was within normal limits, with no evidence of a suprarenal mass.

Laboratory report: Hemoglobin 16.6 gms., 14,500 WBC with 73% neutrophils (23 stabs). Eosinophil count 110/cu.mm. Serum sodium 145, potassium 4.0, chlorides 111, and bicarbonate 19 mEq/L. Serum A/G 3.7 to 1.9. Urine 17-ketosteroids, 33 mgs./24 hrs. (normal 5-15); 17-ketogenic steroids, 22 mgs./24 hrs. (normal 5-15). Porter-Silber chromogens, 33 micrograms/100 ml. (normal 6-25). PBI 3.6 micrograms%. Fasting blood sugar 123 mgs.% (Folin-Wu).

SURGERY:

On November 12, 1962, a total bilateral adrenalectomy was performed, with a large tumor found on the right side and a smaller one on the left.

GROSS PATHOLOGY:

The greatly enlarged right adrenal was an oval mass, 9 x 6 x 5 cm., and weighed 150 gms. The cut surface showed homogeneous soft, slightly bulging yellow-orange tissue with a thin, delicate capsule at the surface. Occasional small tan or brown foci were seen close to the capsule. The enlarged left adrenal weighed 15 gms. and measured 6 x 4 x 1.5 cm. Two oval nodules, 1.5 and 1.2 cm. in diameter were present in this, and there were smaller 5 to 7 mm. yellow nodules also present here. Otherwise the cortex was 2 mm. thick and tan-brown in color. Also removed was a gallbladder containing three calculi, and a biopsy of an apparently normal ovary.

COURSE:

The post-operative course was uneventful. The patient was discharged from the hospital on the 9th post-operative day, having been maintained on 50 mgs. of cortisone daily.

FOLLOW-UP:

She was re-admitted three weeks later for 2 days of hospitalization because of nausea. An upper G.I. x-ray examination noted pylorospasm and findings suggestive of duodenitis. Serum sodium, potassium, chloride, calcium and phosphorus were all within normal limits. Blood pressure was 122/68.

She was last seen on June 11, 1964. As far as the doctor can tell, she seems to be in good condition. Her chemistries were normal. She is now working half time.

NAME: S. G. AUGUST 1964 - CASE NO. 3

AGE: 38 SEX: Male RACE: Caucasian ACCESSION NO. 11241

CONTRIBUTOR: Leo Kaplan, M. D. Outside No. T-3696-60
Mount Sinai Hospital
Los Angeles, California

TISSUE FROM: Adrenal

CLINICAL ABSTRACT:

This 38 year old white male had had recurrent episodes of transitory weakness, pallor and hypertension of several years' duration. He had had repetitive clinical studies without an established diagnosis. In June of 1960, studies directed toward the adrenal gland were made. Two successive studies of urine specimens obtained two hours after episodes of hypertension, pallor and weakness each showed four micrograms per 100 ml. of catecholamines. Simultaneously specimens were studied for catecholamines metabolites (expressed as mandelic acid - normal 0.7 - 6.8 mg./day). One of these was 0.3 mg. and the other 4.1 mg./24 hrs. A 17-ketosteroid study was done and was found to be 13.6 mg. per 24 hrs. On December 21, 1960, a shadow was observed in the left suprarenal area (rounded, soft tissue) on the intravenous urogram and it was again demonstrated by means of the perirenal air study. Numerous additional studies failed completely in the attempt to isolate adrenalin or noradrenalin during the attacks of this patient. Glucose tolerance studies revealed a delayed hypoglycemia, at the two-hour period to approximately 40 mg.%.

The past history of this patient included a coronary occlusion and myocardial infarction approximately one year before admission. He recovered from this completely. An EKG taken on admission at this time showed a marked degree of left axis deviation with no other change. A chest x-ray showed no specific change, however, there were foci of calcification in both lungs. The admission blood pressure was 140/90 and pulse 80. No cardiac murmurs were heard.

SURGERY:

On December 23, 1960, a left retroperitoneal exploration was made. The initial blood pressure was 130/70, later becoming 100/70. When the left adrenal was approached and was manipulated, the blood pressure rose rapidly to 220/140 and within 15 minutes to 190/160. When the adrenal was mobilized and removed, the patient experienced a period of shock, requiring intravenous solucortef and levophed and soon responded, but it was noted that the patient was in slight pulmonary edema. He was given cedilanid and shortly thereafter responded.

COURSE:

At 6 p.m. of the day of surgery, the blood pressure was 120/70, the wound healed promptly, and the patient's clinical status was considerably improved with the blood pressure leveling itself between 130/140 systolic and between 78-86 diastolic. There had been no episodes of hypertension nor other clinical abnormalities since surgery. This was dramatic because rarely a day passed without an episode in the past.

GROSS PATHOLOGY:

The surgical specimen measured 8.5 cm. in length and centrally 4.4 x 3.6 cm. in diameter. This was an adrenal gland, 2/3 of which was replaced by a grayish yellow and brownish blue congested, focally hemorrhagic neoplasm that measured 4.0 x 3.4 cm. in diameter. Over its surface could be seen a thin rim of persistent yellow adrenal cortex. The tumor was demarcated quite sharply. Extracts were made of the neoplasm and tested firstly for catecholamine metabolites and found to contain none. The tumor contained 8.6 mg/gm. of tumor tissue of adrenaline and 7.9 mg/gm. of tissue of noradrenaline. Studies for serotonin and ketosteroids were negative. No aldosterone studies were made.

FOLLOW-UP:

He was regularly seen through 1961 and showed no evidence of persistent disease and his blood pressure was persistently normal. He was seen once in 1962 (December). The examination again was negative and the blood pressure 126/90. He was last seen in January 1964, completely asymptomatic and the blood pressure 130/90. A call to his home on July 23, 1964 by one of the physicians affirms the fact that he is entirely well.

NAME: M. W. AUGUST 1964 - CASE NO. 4

AGE: 72 SEX: Male RACE: Caucasian ACCESSION NO. 13183

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

Outside No. T-2674-63

TISSUE FROM: Retroperitoneal mass

CLINICAL ABSTRACT:

In a routine check-up at the clinic, this 73 year old retired baker was found to have a large left upper quadrant mass, and the only symptom was a 15 lb. weight loss in one year. The past history included a right nephrolithotomy in 1949 for acute renal colic followed by post-operative bleeding; bilateral cataract extraction. Polyuria up to 15 times/day was currently noted.

The examination showed an 80 pulse, regular, with a blood pressure of 140/80. He was well nourished and showed only a rather firm, rounded mass, approximately 7 to 8 cm. below the left costal margin that descended minimally with inspiration. There were degenerative retinal changes. There were signs of Parkinsonism and signs suggesting basilar artery sclerosis or spinocerebellar degenerative disease.

The laboratory findings showed a 14.0 gm. hemoglobin, with normal bleeding and clotting time, a prothrombin time of 66% with a normal prothrombin consumption and normal thromboplastin generation test. The platelets were 190,000 preoperatively. The admission creatinine was 1.4. A variety of skin tests for infectious diseases were negative. A 2 hr. PC sugar preoperatively ranged from 183 to 209, and postoperatively in the low 200's.

Electrocardiograms were negative. Chest and skull x-rays were negative. An intravenous pyelogram showed an ovoid calcified mass, 13 x 16 cm., in the left upper quadrant with slight displacement of the kidneys and suggestion of extrinsic pressure upon the kidney. The barium enema was negative.

SURGERY:

On June 10, 1963, seven days after admission, a laparotomy was performed and a cystic retroperitoneal mass, 15 cm. in diameter, situated above the left kidney was totally excised. The tumor shelled out easily. It was noted during surgery, that the blood pressure of the patient rose considerably from the above normal level to 220/90 without a concomitant rise in pulse, and the appearance of extrasystoles was noted at the same time. The blood pressure returned to normal and the extrasystoles disappeared with the removal of the tumor.

GROSS PATHOLOGY:

The specimen consisted of a mass which measured 14 x 11.5 cms. and weighed 850 gms. It was covered externally by an egg-shell-like, scarified and calcified capsule, measuring up to 3 to 4 mm. in some areas and in a few zones up to 1 cm. in thickness. This capsule contained a muddy, pasty, brownish material, which was removed freely from most of the inner surface of the capsule but remained adherent as brown, shaggy plaques in a number of areas. There were also left, in some areas, yellowish-tan, polypoid elevations, some of which seemed to be cystic.

COURSE:

A diabetic 1600 calorie diet was insufficient to prevent glycosuria postoperatively and he was therefore started on 125 mgs./each day of diabinase. He was discharged improved on June 23, 1963, to be followed in the clinic.

FOLLOW-UP:

In July and August, he was treated and apparently cured for an epididymitis and was placed on a diabetic diet of 1800 calories per day and given diabinase 250 mgs. per day. He was seen regularly and continued to gain weight and his diabetes was easily and well controlled. His blood sugar dropped to 90 mgs.%. His blood pressure was always normal.

In January 1964, he was treated and cured for fungus infection of his toe nails. This recurred in May of 1964. He was regularly checked for abnormal chemistries including 24-hour catecholamine metabolites and all were regularly normal.

He was last seen in the clinic in July of 1964 and was entirely well, without signs or symptoms of any significant illness. A number of chest x-rays and intravenous pyelograms have shown no abnormalities.

NAME: H. H. AUGUST 1964 - CASE NO. 5

AGE: 63 SEX: Male RACE: Caucasian ACCESSION NO. 13431

CONTRIBUTOR: E. R. Jennings, M. D. Outside No. S-3568-63
Memorial Hospital of Long Beach
Long Beach, California

TISSUE FROM: Neck mass

CLINICAL ABSTRACT:

History: This 63 year old white male presented with a lump in the left cervical area for three years. He was treated surgically initially when a biopsy was done. Since that time, the mass has grown considerably, and is now about twice the original size.

Physical examination revealed a large parotid mass on the left side which extended from the ear to half way down the neck and a good distance over the jaw. It was located about 4 cm. behind the angle of the jaw and was over and well below the mastoid process. This tumor mass was nodular and quite limited in motion. It was non-tender. There were no cervical nodes palpable. The mouth and pharynx were clear with the exception of a papilloma of the left tonsil. There were no axillary nodes palpable. The patient was admitted to the hospital for surgery.

SURGERY:

At surgery, a large tumor was found in the left neck, extending superiorly to the base of the skull, along the great vessels, and posteriorly behind and around the sternocleidomastoid muscle. It extended anteriorly just beyond the level of the great vessels. This tumor mass also extended deeply between the great vessels and encompassed the hypoglossal nerve, the vagus nerve, and the spinal accessory nerve on the left side. The mass was removed.

GROSS PATHOLOGY:

The surgical specimen consisted of a piece of skin that was T-shaped, and measured 11 x 7 cm. Attached to it were portions of skeletal muscle and subcutaneous tissue. Within the subcutaneous tissue, there was a 5 cm. structure resembling a large lymph node. Cut sections showed necrosis and hemorrhagic areas.

COURSE:

The patient had a benign post-operative course, and was discharged from the hospital in an improved condition on June 24, 1963.

FOLLOW-UP:

The original biopsy on this patient was performed 3 years ago elsewhere and was reported as a mixed tumor of the parotid. The patient was last seen on June 18, 1964. At this time there was no evidence of disease. There was a slight lagging of the left vocal cord and the patient was experiencing slight difficulty with swallowing.

NAME: V. C. AUGUST 1964 - CASE NO. 6

AGE: 62 SEX: Female RACE: Caucasian ACCESSION NO. 13423

CONTRIBUTOR: John W. Budd, M. D. Outside No. H-24044
Hollywood Presbyterian Hospital
Los Angeles, California

TISSUE FROM: Carotid

CLINICAL ABSTRACT:

History: The patient noted a gradual enlargement of a nodule in the left neck six months prior to surgical excision. There were no symptoms or tenderness. No response to sulfonamide therapy.

Examination revealed a nodule, 2.5 x 3 cm. in diameter, which was fixed to the deep tissue.

SURGERY:

On August 23, 1963, at surgery, a tumor was found at the bifurcation of the carotid.

GROSS PATHOLOGY:

The specimen consisted of an ovoidal firm nodule, 2.5 x 1.8 cm. in diameter, and was made up of pinkish tan, fairly homogeneous semi-opaque tissue, mottled with hemorrhage.

FOLLOW-UP:

On July 23, 1964, patient reported that she is completely well and normal.

NAME: A. E. AUGUST 1964 - CASE NO. 7

AGE: 53 SEX: Female RACE: Caucasian ACCESSION NO. 10998

CONTRIBUTOR: Meyer Zeiler, M. D.
Inglewood, California Outside No. ME 4303

TISSUE FROM: Thyroid

CLINICAL ABSTRACT:

History: The patient was seen in March 1960 with exophthalmus and a symmetrically enlarged thyroid (no tumor nodule was palpated). The patient also experienced coarse tremors, tachycardia, and irregular pulse. A basal metabolism rate at the time of admission was +59%. Protein bound iodine was not done.

SURGERY:

On April 12, 1960, a bilateral subtotal thyroidectomy was performed.

GROSS PATHOLOGY:

The specimen consisted of a rather large mass of thyroid tissue representing both lobes joined by isthmus. Together they weighed 83 gms. Each lobe was similar in shape and measured 7 x 5 x 3 cm. They were somewhat scarred and pitted in a few areas. The groove of the trachea was quite prominantly seen between the two lobes and one appeared to be the left hand lobe of the thyroid. There was a firm gray-white scar, measuring 15 mm. in diameter, and extending out from this white firm area were strands of fibrous tissue. Although it was situated near the center of the lobe, one part of the lobe was puckered inward and here the normal surrounding glandular tissue measured 5 to 6 mm. in thickness. Other portions of the gland were more uniform in texture, although the gland was somewhat more granular and apparently contained more colloid than usual. In the same lobe as the scar were many other white areas and at one point the scar extended to the surface.

FOLLOW-UP:

Following discharge from the hospital, she received radioactive therapy. At the present time (7-24-64), she weighs 202 lbs. in spite of her taking four tablets of thyroid, 60 mg. daily. She has suffered with a cough on and off since the operation.

NAME: A. A. AUGUST 1964 - CASE NO. 8

AGE: 9 SEX: Female RACE: Caucasian ACCESSION NO. 11578

CONTRIBUTOR: Weldon K. Bullock, M. D. Outside No. 61-1774
Los Angeles County Hospital
Los Angeles, California

TISSUE FROM: Thymus

CLINICAL ABSTRACT:

History: This child was well until June 1960, when she had leg weakness after moderate activity, speech became progressively nasal, and she developed ptosis. It was noted that she began to drop objects, developed gait disturbance, and that she began choking on saliva and food.

Physical examination (August 13, 1960): She had bilateral ptosis, and weakness of the left lateral rectus with left esotropia. The pupils were equal and reacted slowly to light, but accommodated normally. There was weakness of the muscles of mastication, the sternocleidomastoid and trapezius, and the facial muscles bilaterally. She had difficulty in swallowing and in holding the head erect.

Laboratory report: The routine laboratory tests were normal. Administration of Tensilon cleared the speech; ptosis disappeared and she was able to hold the head up with ease, but the effect wore off within two minutes. She responded to Prostigmine, the effect lasting for more than an hour. Serum creatinine was 0.8 mg/100 ml. (normal 0.7 - 1.3), serum choline esterase level 1.08 pH units (normal 0.5 - 1.3 pH units); the urine creatine was 2.9 mg/100 ml. (total 24-hr. volume 220 ml.). Progesterone metabolism, thyroid studies, muscle biopsies, and enzyme studies have been negative. The tests to rule out genitourinary, liver and central nervous system diseases have been normal. The parents and siblings of patient have been tested with tubal curarine, and her brother had a questionably positive response; the parents were negative.

COURSE:

Although she did well initially, she became progressively weaker and medication dosage had to be increased. On November 23, 1960, she was admitted with a cholinergic crisis during which she received Tensilon, external cardiac resuscitation, positive pressure respiration, and atropine. An elective tracheostomy was performed. She was placed in a respirator and a gastrostomy tube was placed. She remained in this condition until February 1961 when she had surgery.

SURGERY:

On February 7, 1961, a thymectomy was performed.

GROSS PATHOLOGY:

The specimen consisted of an elongated symmetrically bi-lobed encapsulated thymus, measuring 8.5 cm. in length, 0.5 cm. in thickness, and tapering from 3.5 cm. width at the base to 1 cm. at the narrowest portion. The gland weighed 13 grams. The parenchyma was pale gray with some small folded cyst-like spaces within the cysts.

FOLLOW-UP:

The patient has done well postoperatively and improved. She was last seen in the clinic on January 24, 1964, at which time she stated she has had three colds since her last visit (July 26, 1963). Her height and weight were stable. She is on Mestinon and Prostigmine. Examination revealed muscle strength fair, trachea still open, and facial acne present. Her periods are irregular. To return in six months.

NAME: L. F. AUGUST 1964 - CASE NO. 9

AGE: 26 SEX: Male RACE: Caucasian ACCESSION NO. 11235

CONTRIBUTOR: Paul Jernstrom, M. D. Outside No. SA65-59
St. Francis Hospital
Lynwood, California

TISSUE FROM: Mediastinum (biopsy)

CLINICAL ABSTRACT:

History: This 26 year old, white man was admitted to the hospital complaining of severe and protracted tussis with occasional hemoptysis of about one month's duration. He was accustomed to an intermittent, dry, hacking cough as he had smoked an average of one package of cigarettes daily from the age of 9 years. Two weeks prior to hospitalization, however, there was an increase in the frequency, severity and length of the tussic attacks with inteemittent hemoptysis productive of "blood clots." He actually fainted two or three times from episodes of the latter condition. Ten days prior to his admission, he suffered shaking chills and bouts of fever to 102°F. for three consecutive days. There was associated weakness, fatigue, and dyspnea.

He was born in New Mexico and in addition to having many of the diseases ordinarily associated with childhood, he experienced moderately severe symptoms and signs associated with coccidiodes immitis at age 21 years. Review of the family and social history as well as individual systems, failed to uncover additional information. A married man, this person has a son who bears a strong resemblance to him.

Physical examination revealed a well developed, thin, white man whose temperature was 99.7°F. Other abnormalities included prolonged expiratory breath sounds and testicles which seemed smaller than normal. The temperature during hospitalization ranged from normal to 101°F. almost daily.

Laboratory report: Hemoglobin 11.9; hematocrit 34%; ESR 20 mm./hr; WBC 9,300. Cerebral spinal fluid normal. Sputum and bronchial washings contained alpha streptococci only. Skin tests for tuberculosis and histoplasma negative; 1 to 2 cm. indurated erythematous area for coccidioidomycosis. Complement fixation tests for the latter was negative. Urine chorionic gonadotropin (rat test) positive.

X-ray report: Roentgenograms of the thorax showed widening of the mediastinum and diffuse nodular densities throughout the lung. X-rays of the hands and feet were negative.

Clinical course: Coughing became incessant and often productive of varying amounts of clotted blood. There was associated thoracic and right subcostal pain. Bronchoscopy revealed only a trickle of blood in the orifice of the left upper lobe bronchus. Examination of tissue from the right scalene lymph nodal area disclosed nonspecific inflammatory changes. Shortly thereafter, a left anterior thoracotomy with biopsy of mediastinal and pulmonic tissue was performed. He was given a course of Mustargin, mg. 7 (1 mg./Kg. of body weight) daily I.V. for four days. This was accompanied by nausea and mild diarrhea which disappeared following cessation of the treatment. He was discharged only to return within two weeks for another attempt to halt the rapid deterioration taking place. He received another course of nitrogen mustard and additional transfusions of whole blood as well as pitting edema ensued. Dyspnea progressed to orthopnea and ultimately apnea. Thus, he died five days after his ultimate admission and some two months from the time his initial symptoms appeared.

FOLLOW-UP:

The patient expired on May 9, 1959. At autopsy: The anterior-superior mediastinum was the site of a large, ovoid, red-purple, variegated, soft to firm mass of tumor tissue, measuring 12 x 10 x 3 cm. and weighing 290 gms. It encompassed the great vessels of the neck to the level of the sternal notch and compressed the arch of the aorta postero-inferiorly. The great vessels of the neck, the aorta, and the iliac arteries were disproportionately small in relation to the size of the deceased. Hemisected surfaces of this mass revealed bright mahogany-red to orange-yellow to gray-pink, variegated tissue which was soft to moderately firm. An eccentric, ovoid area in the midst of the tumor was gray-white and firm to bone-hard. Adjacent areas were soft to cystic and necrotic.

In addition, metastatic nodules were found in the lungs, liver, spleen, kidneys, adrenal, and thyroid.

NAME: E. K. AUGUST 1964 - CASE NO. 10

AGE: 48 SEX: Female RACE: Negro ACCESSION NO. 11693

CONTRIBUTOR: C. P. Schwinn, M. D. Outside No. 59-13051
Los Angeles County Hospital
Los Angeles, California

TISSUE FROM: Adrenal

CLINICAL ABSTRACT:

History: This patient came to the hospital complaining of "high blood pressure, bad kidneys, and bad eyes," for about 30 years. She experienced dizziness, headache, pain in the neck and faintness, all of which were increased in severity by "aggravation and worry." She had uterine leiomyomata removed in 1945, syphilis treated in 1941, malaria in 1934, and typhoid fever in 1929. There was no history of other cardiovascular disease, tuberculosis, cancer or diabetes. In June 1959, the blood pressure was 270/155 and she was placed on reserpine and phenobarbital. She was admitted to the hospital for work-up on July 16, 1959.

Physical examination: The patient was obese. Blood pressure 230/130, bilaterally, sitting and standing, pulse 72. Fundoscopic: Marked arterial narrowing with A/V nicking. There was no cardiac enlargement.

Laboratory report: Hemoglobin 12.3 gm; WBC 5800. Urine: Albumin trace, few pus cells, occasional RBC. Serum Na 144 mEq/L, K 2.6 mEq/L, Cl 94 mEq/L, CO_2 38 mEq/L. 24-hour urinary excretion (total volume: 2170 ml.) of Na 38 mEq, K 316 mEq., preformed creatinine 642 mg. (Normal values for 24-hr. excretion: Na 186-216 mEq., K 65-78 mEq.). Urinary catechol amines 3 ug/100 ml. 24-hour exchangeable K 39.4 mEq/Kg.; 24-hour exchangeable Na 52.9 mEq/Kg. Arterial pCO_2 43-46 mm. Hg. (Normal 35-45). 24-hour urinary aldosterone 24 gamma (2nd determination 30 gamma)/day (Normal 4-12 gamma). Uropepsin 40 and 45 units/hr. (Normal 15-40).

SURGERY:

On September 22, 1959, exploration of both adrenal areas was done. The right adrenal appeared slightly atrophic. The left adrenal contained a 1 cm. firm round nodular tumor in the posterolateral aspect. Left adrenalectomy was performed.

GROSS PATHOLOGY:

The left adrenal weighed 6 gms. It was of normal configuration except for a 1.6 x 1.5 x 1 cm. cortical nodule, which on section was fairly homogeneous and yellow-orange in color.

COURSE:

Chemistries on the day following surgery were as follows: Serum Na 144 mEq/L, K 4.2 mEq/L, Cl 92 mEq/L, CO_2 31 mEq/L. The patient had a satisfactory post-operative recovery and was discharged on October 8, 1959.

FOLLOW-UP:

In March 1960, serum Na was 146 mEq/L, K 5.7 mEq/L, CO_2 23 mEq/L, Cl 119 mEq/L. 24-hour urinary excretion (total volume 1780 ml.) of Na was 152 mEq. and K 38 mEq. Blood pressure was 200/120. The patient is seen regularly in the Internal Medicine Clinic, her last visit being July 20, 1964. The blood pressure was 140/110 (supine); 130/100 (sitting); $108/\frac{100}{90}$ (standing). She felt well and had no complaints; still taking reserpine.

NAME: S. J. AUGUST 1964 - CASE NO. 11

AGE: 60 SEX: Male RACE: Caucasian ACCESSION NO. 13325

CONTRIBUTOR: E. R. Jennings, M. D. Outside No. S 5552-63
Memorial Hospital of Long Beach
Long Beach, California

TISSUE FROM: A - thyroid parathyroid
B - large parathyroid

CLINICAL ABSTRACT:

History: This 60 year old furniture salesman was admitted to the hospital on September 9, 1963 with complaints of nocturia and difficulty in emptying his bladder, and right sacro-iliac pain of several weeks' duration.

Physical examination was essentially negative except for a Grade III enlargement of the prostate.

Laboratory examination revealed a hemoglobin of 14.6, WBC of 7,300, and a normal differential. Serum cholesterol 215, serum alkaline phosphatase 2.0, BUN 23, and serology non-reactive. A hemogram, which included hemoglobin, hematocrit, RBC, RBC indices, reticulocyte count, platelet count, WBC with a differential, sedimentation rate, serum bilirubin, and Coombs test demonstrated no significant abnormalities. A bone marrow study revealed a normal cellular bone marrow with no diagnostic pattern. Urinalysis revealed 12 - 15 WBC per hpf. A urine culture was negative. A urinary Sulkowitch was within normal limits. PBI was 4.2, and numerous serum calciums ranged from between 5.8 and 7.7 mEq/L. A serum phosphorus was 2.3 mEq/L, and serum proteins, including an electrophoretic study were entirely within normal limits. Twenty-four hour urine calcium secretion was 9.5 mEq. (normal: 3 to 8.5 mEq. per 24 hours). A test of tubular reabsorption phosphate was 60% (normal: 80-90%). PSP revealed 3% at 15 minutes, and 15% at 75 minutes. RVP was normal.

X-ray report: Chest x-ray revealed minimal emphysema. X-rays of the lumbosacral spine, hands, and skull were normal. A colon study and upper G.I. series were normal.

SURGERY:

The patient was taken to surgery on September 25, 1963, and the neck was explored. A large mass, measuring 4 x 6 cm., was removed from the region of the lower pole of the thyroid. A mass, measuring 1 cm., was removed from the superior parathyroid region on the left side also.

GROSS PATHOLOGY:

The specimen consisted of an ovoid, irregular mass, which was lobulated and apparantly encapsulated. It measured 5.5 x 4.0 x 1.8 cm., and weighed 25 gm. The cut surface was rubbery and variegated red and tan in color. There were many small cystic areas, measuring up to 0.8 cm. in diameter.

The second portion of the specimen was a small tan piece of tissue, measuring 0.8 cm. in maximum extent.

FOLLOW-UP:

At the present time he is asymptomatic. The last calcium was 5.2 mEq/L, and the patient is not taking any calcium now.

STUDY GROUP CASES

FOR

AUGUST 1964

CASE NO. 1, ACCESSION NO. 11719, Leonard R. Ortega, M. D., Contributor

LOS ANGELES:

Islet cell tumor, 12.

SAN FRANCISCO:

Islet cell tumor, pancreas, functioning, 13.

OAKLAND:

Functioning malignant islet cell tumor, 18.

CENTRAL VALLEY:

Benign insulinoma, 9; malignant functioning islet cell tumor, 3.

SAN DIEGO:

Islet cell carcinoma, 5; functional islet cell tumor, 5.

WEST LOS ANGELES:

Functioning islet cell tumor, 6.

FORT MYERS, FLORIDA:

Functioning islet cell tumor, 3.

FILE DIAGNOSIS: Functioning islet cell tumor, pancreas 690-8044

FOLLOW-UP:

The patient was last seen by her physician on May 9, 1964 and was found to be in good health with no evidence of tumor. She is regularly employed as an elevator operator.

AUGUST 1964

CASE NO. 2, ACCESSION NO. 12928, R. D. Lewis, M. D., Contributor

LOS ANGELES:

Functioning adenomas of adrenal, bilateral, 12.

SAN FRANCISCO:

Adenoma, adrenal, cortical, functioning, 13.

OAKLAND:

Adrenal cortical adenoma, 18.

CENTRAL VALLEY:

Adrenal cortical adenoma with Cushing's syndrome, 12 (two considered the possibility of hyperplasia, rather than adenoma).

SAN DIEGO:

Cortical hyperplasia with Cushing's, 10.

WEST LOS ANGELES:

Functional adrenal cortical adenomata, 6.

FORT MYERS, FLORIDA:

Adenomatous hyperplasia of adrenal, 3.

FILE DIAGNOSIS: Adenoma, adrenal, cortical 860-8091 A

AUGUST 1964

CASE NO. 3, ACCESSION NO. 11241, Leo Kaplan, M. D., Contributor

LOS ANGELES:

Pheochromocytoma, 13.

SAN FRANCISCO:

Pheochromocytoma, 13.

OAKLAND:

Pheochromocytoma, 18.

CENTRAL VALLEY:

Pheochromocytoma, 12.

SAN DIEGO:

Pheochromocytoma, 11.

WEST LOS ANGELES:

Pheochromocytoma, 6.

FORT MYERS, FLORIDA:

Pheochromocytoma, 3.

FILE DIAGNOSIS: Pheochromocytoma 862-8431

AUGUST 1964

CASE NO. 4, ACCESSION NO. 13183, Leo Kaplan, M. D., Contributor

LOS ANGELES:

Adenoma, necrotic and cystic (pheochromocytoma), 13.

SAN FRANCISCO:

Pheochromocytoma, cystic, 13.

OAKLAND:

Cyst, 8; resolving hematoma, 2; cystic pheochromocytoma, 8.

CENTRAL VALLEY:

No diagnosis due to insufficient material, 6; hemorrhagic pseudocyst of undetermined origin, possibly pancreatic or adrenal or old retroperitoneal hematoma, 4; paraganglioma, 1; degenerated adrenal tumor, 1.

SAN DIEGO:

Hemorrhagic peritoneal cyst, 2; pheochromocytoma, with hemorrhage, 9.

WEST LOS ANGELES:

Infarcted pheochromocytoma, 6.

FORT MYERS, FLORIDA:

Ancient organizing hematoma of adrenal, 3.

FILE DIAGNOSIS: Cystic pheochromocytoma 065-8431

AUGUST 1964

CASE NO. 5, ACCESSION NO. 13431, E. R. Jennings, M. D., Contributor

LOS ANGELES:

Carotid body tumor, 13.

SAN FRANCISCO:

Paraganglioma, 13.

OAKLAND:

Chemodectoma, 12; acinic cell carcinoma, 1.

CENTRAL VALLEY:

Chemodectoma, 11; paraganglioma, 1.

SAN DIEGO:

Chemodectoma (carotid body tumor), 9; chemodectoma (carotid body tumor), histologically malignant, 1.

WEST LOS ANGELES:

Chemodectoma, 6.

FORT MYERS, FLORIDA:

Carotid body tumor, 3.

FILE DIAGNOSIS: Carotid body tumor (chemodectoma) 890-8981

AUGUST 1964

CASE NO. 6, ACCESSION NO. 13423, John W. Budd, M., D., Contributor

LOS ANGELES:

Carotid body tumor, 13.

SAN FRANCISCO:

Carotid body tumor, 13.

OAKLAND:

Carotid body tumor, 18.

CENTRAL VALLEY:

Chemodectoma (carotid body tumor), 12.

SAN DIEGO:

Carotid body tumor (chemodectoma), 11.

WEST LOS ANGELES:

Carotid body tumor (chemodectoma), 5; non-chromaffin paraganglioma, 1.

FORT MYERS, FLORIDA:

Carotid body tumor, 3.

FILE DIAGNOSIS: Carotid body tumor (chemodectoma) 890-8981

AUGUST 1964

CASE NO. 7, ACCESSION NO. 10998, Meyer Zeiler, M. D., Contributor

LOS ANGELES:

Papillary carcinoma in hyperfunctioning gland, 13.

SAN FRANCISCO:

Adenocarcinoma, thyroid, papillary, 11; adenocarcinoma, thyroid, follicular, in a toxic goiter, 1.

OAKLAND:

Papillary carcinoma, thyroid, 17; hyperplasia, thyroid, 1.

CENTRAL VALLEY:

Multicentric thyroid carcinoma, papillary and follicular, occurring in hyperthyroidism, 9; benign thyroid hyperplasia with thyrotoxicosis, 3.

SAN DIEGO:

Nonencapsulated sclerosing tumor of thyroid, papillary adenocarcinoma, 11.

WEST LOS ANGELES:

Diffuse hyperplasia with focal papillary adenocarcinoma, 6.

FORT MYERS, FLORIDA:

A. Residual hyperplasia of thyroid.
B. Occult sclerosing carcinoma of the thyroid.

FILE DIAGNOSIS: Papillary carcinoma, thyroid 810-8023

AUGUST 1964

CASE NO. 8, ACCESSION NO. 11578, Weldon K. Bullock, M. D., Contributor

LOS ANGELES:

Hyperplasia of thymus with myasthenia gravis, 13.

SAN FRANCISCO:

Thymoma, presenting with myasthenia gravis, 2; hyperplasia, thymus, medullary, presenting with myasthenia gravis, 10.

OAKLAND:

Thymic hyperplasia consistent with myasthenia gravis, 18.

CENTRAL VALLEY:

Thymoma with myasthenia gravis, 6; clinical myasthenia gravis with histologically normal thymus, 6.

SAN DIEGO:

Hyperplastic thymus with myasthenia gravis, 10; normal thymus with myasthenia gravis, 1.

WEST LOS ANGELES:

Diffuse follicular lymphoid hyperplasia of thymus (myasthenia gravis), 6.

FORT MYERS, FLORIDA:

Thymic lymphoid hyperplasia consistent with myasthenia gravis, 3.

FILE DIAGNOSIS:	Thymic hyperplasia with myasthenia gravis	830-943 270-562

AUGUST 1964

CASE NO. 9, ACCESSION NO. 11235, Paul Jernstrom, M. D., Contributor

LOS ANGELES:

Choriocarcinoma, extratesticular, 13.

SAN FRANCISCO:

Malignant teratoma with choriocarcinoma arising in the mediastinum, 12.

OAKLAND:

Malignant germinal tumor, mediastinum, with choriocarcinoma, 14; malignant germinal tumor, mediastinum, with embryonal carcinoma, 3; choriocarcinoma, 1.

CENTRAL VALLEY:

Malignant teratoma with choriocarcinoma, 9; thymic carcinoma, 3.

SAN DIEGO:

Choriocarcinoma, 11.

WEST LOS ANGELES:

Extragenital choriocarcinoma of mediastinal origin, 6.

FORT MYERS, FLORIDA:

Choriocarcinoma of the anterior mediastinum, 3.

FILE DIAGNOSIS:	Malignant teratoma with choriocarcinoma	039-882 039-880 F

AUGUST 1964

CASE NO. 10, ACCESSION NO. 11693, C. P. Schwinn, M. D., Contributor

LOS ANGELES:

Adrenal cortical adenoma with hyperaldosteronism, 13.

SAN FRANCISCO:

Adenoma, adrenal, cortical aldosterone producing, 11.

OAKLAND:

Adrenal cortical adenoma with aldosteronism, 18.

CENTRAL VALLEY:

Cortical adenoma with aldosteronism, 12.

SAN DIEGO:

Cortical adenoma with aldosteronisms, 11.

WEST LOS ANGELES:

Cortical adrenal adenoma with aldosteronism, 6.

FORT MYERS, FLORIDA:

Adrenal adenoma (secreting aldosterone), 3.

FILE DIAGNOSIS:	Adrenal cortical adenoma with aldosteronism	861-8091 A 861-7814

AUGUST 1964

CASE NO. 11, ACCESSION NO. 13325, E. R. Jennings, M. D., Contributor

LOS ANGELES:

Parathyroid adenoma, 13.

SAN FRANCISCO:

Hyperplasia, parathyroid, 10; adenoma, parathyroid, 11.

OAKLAND:

Parathyroid hyperplasia, 11; parathyroid adenomas, 6.

CENTRAL VALLEY:

A&B: Parathyroid adenoma, 11; A - adenoma, B - hyperplasia, 1.

SAN DIEGO:

A: Adenoma, 5; parathyroid hyperplasia, 6.
B: Adenoma, 5; parathyroid hyperplasia, 6.

WEST LOS ANGELES:

Adenomas of the parathyroid glands, 6.

FORT MYERS, FLORIDA:

Adenomas (2) of the parathyroid glands, 3.

FILE DIAGNOSIS:	Parathyroid adenoma	820-8091 A
	Parathyroid hyperplasia	820-943