review

CALIFORNIA TUMOR TISSUE REGISTRY

SIXTY-SECOND SEMI-ANNUAL SLIDE SEMINAR

ON

TUMORS AND TUMOR-LIKE CONDITIONS OF THE LYMPHORETICULAR AND HEMATOPOIETIC SYSTEMS

DEDICATED TO:

L. JOHN TRAGERMAN, M.D.

CONSULTANT ADVISOR FRIEND

MODERATOR:

Robert J. Lukes, M. D.
Professor of Pathology
USC School of Medicine

Head of Hematopathology
LAC-USC Medical Center
Los Angeles, California

CHAIRMAN:

Lauren V. Ackerman, M.D.
Professor of Pathology
State University of New York,
Stonybrook

SUNDAY, DECEMBER 12, 1976
9:00 A.M. to 4:30 P.M.

CENTURY PLAZA HOTEL
LOS ANGELES, CALIFORNIA

Please bring your protocol, but do not bring slides or microscopes to the meeting.

CALIFORNIA TUMOR TISSUE REGISTRY

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We acknowledge with thanks the voluntary help given by:

JOHN TRAGERMAN, M.D., PATHOLOGIST, LAC-USC MEDICAL CENTER
PATRICK CHAMBERS, M.D., RESIDENT IN PATHOLOGY, LAC-USC MEDICAL CENTER
PHILIP VAN HALE, M.D., RESIDENT IN PATHOLOGY, LAC-USC MEDICAL CENTER
LYNN BEVANS, M.D., RESIDENT IN PATHOLOGY, LAC-USC MEDICAL CENTER

DIAGNOSIS SHEET

MODERATOR:
Robert J. Lukes, M.D.

SEMINAR ON TUMORS AND TUMOR-LIKE CONDITIONS OF THE LYMPHORETICULAR AND HEMATOPOIETIC SYSTEMS
CENTURY PLAZA HOTEL
DECEMBER 12, 1976

CASE NO.	ACC. NO.	DIAGNOSES
1	21953	Malignant lymphoma, immunoblastic sarcoma, probably B cell, cerebrum
2	21951	Hodgkin's disease, lymphocyte depletion (reticular), supraclavicular lymph node
3	21957	Malignant lymphoma, mycosis fungoides (T cell), skin and axillary lymph node
4	21958	Malignant lymphoma, immunoblastic sarcoma, B cell type, mediastinum
5	21961	Hodgkin's disease, lymphocyte predominance (lymphocytic and histiocytic, nodular), axillary lymph node
6	21962	Malignant lymphoma, large non-cleaved follicular center cell, minimally follicular, thyroid
7	21952	Hodgkin's disease, mixed, cervical lymph node
8	21406	Hodgkin's disease, lymphocyte predominance (lymphocytic and histiocytic, diffuse, aggressive), cervical lymph node
9	21971	Malignant lymphoma, immunoblastic sarcoma, probably B cell, axillary lymph node
10	21268	Hairy cell leukemia, spleen
11	21955	Malignant lymphoma, immunoblastic sarcoma, plasmacytoid, B cell type, mass right posterior thorax
12	18204	Malignant histiocytosis, axillary lymph node

DIAGNOSIS SHEET

CASE NO.	ACC. NO.	DIAGNOSES
13	21978	Convoluted lymphocytic lymphoma-leukemia (T cell), mediastinum
14	21970	Malignant lymphoma, small cleaved and large non-cleaved follicular center cell, follicular and diffuse, inguinal lymph node
15	22044	Malignant lymphoma, small cleaved follicular center cell, diffuse, axillary lymph node
16	22057	Malignant lymphoma, large non-cleaved follicular center cell, diffuse, tonsil
17	21964	Abnormal immune reaction (with histiocytic component), axillary lymph node
18	22111	Malignant lymphoma, histiocytic type, inguinal lymph node
19	21954	Malignant lymphoma, small non-cleaved follicular center cell, diffuse, terminal ileum
20	22135	Granulocytic sarcoma, orbital mass
21	21824	Malignant lymphoma, immunoblastic sarcoma, B cell, spleen
22	22114	Abnormal immune reaction, immunoblastic (immunoblastic lymphadenopathy-like), cervical lymph node
23	21898	Metastatic carcinoma (lymphoepithelioma) with sclerosis and eosinophilia, neck mass
24	22126	Reactive hyperplasia, follicular and perisinusoidal cell, cervical lymph node
25	22043	Bursa of Fabricius
26	22136	Malignant lymphoma, small cleaved follicular center cell, diffuse, lung

A TRIBUTE

L. John Tragerman M.D. was one of the original group of pathologists that E. M. Butt, M.D. selected as a member of the first study group of the then California Tumor Registry. John has always been a staunch supporter of the Registry and spent the last 3 years doing voluntary work in the Registry. John has been retired from the Clinical Laboratories since 1968 and has almost retired completely from his second love pathology, but still does occasional locum tenens work for his friends. His first love of course is his beautiful and charming wife Marygrace.

We take this opportunity to pay our noted colleague a vote of thanks.

CONTRIBUTOR: Dorothy Tatter, M.D.
LAC-USC Medical Center
Los Angeles, California

DECEMBER 1976 - CASE NO. 1

ACCESSION NO. 21953

TISSUE FROM: Cerebrum

CLINICAL ABSTRACT:

This 64 year old Mexican-American female was admitted on September 24, 1975 with an eight weeks' history of increasing weakness, headache, and difficulty in swallowing. She also had a two years' history of progressive memory loss, disorientation, and bizarre behavior. In April 1973 she was noted to have a right homonymous hemianopsia, early papilledema, increased muscle tone, slight nuchal rigidity, and bilateral Babinski signs. At that time echoencephalogram showed a 4 mm. right to left shift, a right carotid angiogram showed an avascular right fronto-parietal mass and a brain scan showed increased uptake in the left frontal and parietal areas and the right frontal and parietal areas. She was given steroids and 3000 rads to the cranium. Two weeks later she had improved clinically and showed no areas of uptake on scan.

On physical examination in September 1975, she had early papilledema, left homonymous hemianopsia, cogwheeling rigidity, decreased strength on the right, and bilateral Babinski's. A brain scan showed increased uptake in the left frontal parietal area. By right carotid angiogram a left parasagittal cerebral filling defect was observed. EMI scan showed decreased density in the right frontal and left parietal regions. These were thought to be emboli, but could have been tumor. She was discharged to a nursing home and died on January 13, 1976.

AUTOPSY: (January 13, 1976)

Coronal sections of the cerebrum showed a well circumscribed white mass, measuring 2.0 x 1.5 cm., which was identified on the superior anterior left frontal lobe extending into the subarachnoid space. Posteriorly, the left frontal mass on cut section measured 3 x 2 cm. In the right frontal lobe there was another well circumscribed white mass, measuring 6 x 6 x 5 cm., lying approximately 4 cm. lateral to the midline. Another 4 x 3 cm. mass was found in the body of the corpus callosum. Several other well circumscribed masses were found in the globus pallidus and left thalamus.

CONTRIBUTOR: Elmer Jordan, M.D. DECEMBER 12, 1976 - CASE NO. 2
Glendale Adventist Medical Center
Glendale, California ACCESSION NO. 21951

TISSUE FROM: Left supraclavicular lymph nodes

CLINICAL ABSTRACT:

This 36 year old female complained of weight loss and fever over a three month period. In addition, she had had right upper quadrant pain for two years. The patient's brother, stepsister, and stepmother's daughter died of Hodgkin's disease. Although hospitalized for diagnostic tests, she refused lymph node biopsy on several occasions. Hemoglobin was reported at 3.3 gms.%. Finally she underwent a cervical node biopsy and bone marrow aspiration, after a chest radiograph was read as mediastinal mass or adenopathy with pleural effusion. A liver-spleen scan revealed hepatosplenomegaly with impaired hepatic function.

SURGERY: (March 24, 1976)

A biopsy of the left supraclavicular lymph nodes was performed.

GROSS PATHOLOGY:

The largest of the lymph nodes measured 4.5 x 2.8 x 1.8 cm. Upon sectioning the tissue seemed to be pale gray tan (fish-flesh).

FOLLOW-UP:

She was treated with chemotherapy but despite this, her condition deteriorated with the onset of severe back pain and fever. She was re-admitted for new chemotherapy six months after surgery and her condition as of October 19, 1976 was stable.

CONTRIBUTOR: Patrick Chambers, M.D.
LAC-USC Medical Center
Los Angeles, California

DECEMBER 12, 1976 - CASE NO. 3

ACCESSION NO. 21957

TISSUE FROM: Forehead

CLINICAL ABSTRACT:

This 48 year old Black female was admitted on April 9, 1976 for work-up of skin lesions. She had been in good health until three years ago when she first noted dry, pruritic skin on her upper extremities and trunk which progressed. About one year ago, she developed small bumps on her face which progressively enlarged and were pruritic.

On examination of the skin, the central face from the mid-forehead to the chin and both ears were infiltrated with multi-nodular, slightly violaceous lesions with slight superficial scaling. The nodules measured up to 3.5 cm. Hyperpigmented, raised plaques were present over both areolae. The arms and trunk were very dry and covered with scattered and grouped 1 mm. papules. There were two right submental nodes 1/2 x 1 cm. in size, a mobile 2 cm. left anterior cervical node, and a 1 1/2 x 2 cm. left axillary node

Laboratory Data: Hemoglobin was 14, WBC 8,800 with a differential of 71 segs, 0 bands, 26 lymphs, 1 monos, 2 eos and a sedimentation rate of 14.

SURGERY: (April 12, 1976)

A biopsy of the lesions on the forehead was taken.

GROSS PATHOLOGY:

The specimen consisted of a shave biopsy of pigmented skin measuring 2.5 x 1.5 x 0.6 cm. The dermis was soft white.

FOLLOW-UP:

Subsequent biopsies of the left axillary node and left areola were carried out. Subsequent scans of liver and spleen were normal as was a bone marrow biopsy. Prior to induction of chemotherapy she was found to be anergic and on July 10, 1976 was started on Cytoxan, Vincristine, and prednisone. Some improvement was noted and she was doing well as of October 12, 1976.

CONTRIBUTOR: John Nachazel, M.D.
St. Francis Hospital
Lynwood, California

DECEMBER 12, 1976 - CASE NO. 4

ACCESSION NO. 21958

TISSUE FROM: Anterior mediastinum

CLINICAL ABSTRACT:

This 18 year old Caucasian female was seen for shortness of breath and weakness of four months' duration.

Radiographs revealed a poorly defined mass of approximately 12 cm. in the anterior mediastinum.

Laboratory Data: Hemoglobin 13.4, WBC 11,900 with differentiation of 62 segs, 11 bands, 6 eos, 1 basophil, 7 lymphs, and 13 monos. Morphology was said to be normal.

A mediastinoscopy was performed on April 28, 1976 at which time a small amount of tumor and uninvolved lymph nodes were identified.

SURGERY: (May 28, 1976)

A thoracotomy was performed with removal of a non-encapsulated mediastinal mass. A large poorly defined mass occupying the anterior mediastinum was adherent to the major vessels and had to be dissected from the pericardial sac.

GROSS PATHOLOGY:

The 325 gram specimen measured 14 x 11 x 4 cm., and consisted of a roughly triangular or heart shaped moderately firm, rubbery mass of tissue with a rough irregular surface. The surface was pink-tan to light red and shaggy due to adherent fragments of soft tissue from the plane of dissection. On section the mass was fairly homogeneous and consisted of glistening light tan-gray moderately firm tissue with no obvious gross pattern. There were a few areas of softening and zones of light red-gray discoloration, suggesting congestive or degenerative changes.

FOLLOW-UP:

The patient received 4500 rads to the mid-thorax over a four week period as well as chemotherapy. She is attending high school and doing quite well.

CONTRIBUTOR: John R. Craig, M.D.
LAC-USC Medical Center
Los Angeles, California

DECEMBER 12, 1976 - CASE NO. 5

ACCESSION NO. 21961

TISSUE FROM: Axillary lymph node

CLINICAL ABSTRACT:

This 15 year old Black female underwent an excisional biopsy of axillary lymph nodes in 1968, after she had noticed a "lump" in her left axilla, following a dog bite. This was interpreted as a benign reactive lymph node. She was again admitted in September 1975 for a lump growing in her right axilla which had been present "for several years".

On physical examination the right axillary area was more prominent than the left. Several 1.5 to 2 cm. firm, movable, nontender masses were palpable. No hepatosplenomegaly was identified.

Chest radiographs were within normal limits.

Laboratory Data: Hemoglobin 12.8, hematocrit 39, WBC 7,400 with a differential of 39 segs, 58 lymphs, 2 monos, and 1 eos.

SURGERY: (September 2, 1975)

A right axillary lymph node biopsy was performed.

GROSS PATHOLOGY:

The specimen consisted of a 3.0 x 2.5 x 2.5 cm. soft, yellow-tan lymph node and numerous fragments of soft yellow-tan tissue measuring up to 1 x 0.7 x 0.5 cm. On section, the lymph node was nodular with nodules measuring up to 1 cm. They were separated by thin fibrous bands.

FOLLOW-UP:

On September 23, 1975 an exploratory laparotomy was performed during which were noted multiple large succulent lymph nodes in the mesentery of the small bowel. The spleen had several small pale nodules. On October 9, 1975, COPP chemotherapy was begun and final course completed on September 2, 1976. Commencing on January 23, 1976 the upper chest and periaortic nodes were irradiated over a 2 1/2 month period.

CONTRIBUTOR: A. Ali, M.D.
Anaheim General Hospital
Anaheim, California

DECEMBER 12, 1976 - CASE NO. 6

ACCESSION NO. 21962

TISSUE FROM: Right lobe of thyroid

CLINICAL ABSTRACT:

This 44 year old Caucasian female was admitted on December 7, 1975 for a rapidly enlarging right thyroid lobe. She had a previous history of a small left thyroid nodule by palpation. The right lobe enlargement occurred over a 1 1/2 week period and approximately 75% of the right upper lobe was cold by scan. Subsequent evaluation of bone marrow biopsy and aspirate and serum immunoelectrophoresis were essentially negative.

SURGERY: (December 8, 1975)

A right lobectomy and left lobe biopsy was performed.

GROSS PATHOLOGY:

The specimen measured 4 x 4 x 2 cm., and weighed 26 grams. The gland was smooth, rubbery, homogeneously tan with ill-defined yellowish foci. A calcified focus was present which measured 0.3 x 0.2 x 0.2 cm.

FOLLOW-UP:

The patient was doing well without any clinical evidence of disease as of October 27, 1976.

CONTRIBUTOR: Alfredo LaPorta, M.D. DECEMBER 12, 1976 - CASE NO. 7
Metropolitan Hospital Center
New York, New York ACCESSION NO. 21952

TISSUE FROM: Cervical lymph node

CLINICAL ABSTRACT:

This 5 1/2 year old Puerto Rican girl presented with a gradually increasing mass on the right side of her neck over a three month period. A private practitioner was giving her Penicillin for the swelling. There was no history of fever with night sweats or loss of appetite or loss of weight. No history of measles, mumps or chicken pox was elicitable. She had no immunization before December 1974, after which she had 3 DPT, 3 OPV and 1 MMR. Tine test was reported as negative.

Physical examination revealed a 8 x 4 cm. oval smooth mass in the upper part of her right neck. Also palpable were some cervical nodes, some epithrochlear nodes and shotty inguinal lymph nodes. There was no hepatosplenomegaly.

Laboratory reports were within normal limits except for an E.S.R. of 32. Chest radiograph showed a questionable right mediastinal shadow.

SURGERY: (March, 1976)

An excisional biopsy of the right neck mass was performed.

GROSS PATHOLOGY:

The specimen consisted of a 5.5 x 2.5 x 2.0 cm. pink-white and gray soft lymph node.

FOLLOW-UP:

Follow-up not available.

CONTRIBUTOR: Weldon K. Bullock, M.D.
St. Lukes' Hospital
Pasadena, California

DECEMBER 12, 1976 - CASE NO. 8

ACCESSION NO. 21406

TISSUE FROM: Left side of neck

CLINICAL ABSTRACT:

This 53 year old male noticed a cystic area in the left cervical region of his neck. Three years prior to admission, a surgeon felt that this represented a branchial cleft cyst. An aspiration was attempted but no fluid was obtained. Over the next three years the cyst fluctuated in size until May, 1975 when the patient noticed a small node in the left cervical region of his neck.

On physical examination there was a 12 x 6 cm. area of induration in the left cervical region which was slightly tender to palpation. There was no other cervical adenopathy.

Laboratory studies revealed a WBC of 5,600 with a differential of 46 segs, 5 bands, 7 eosinophils, 30 lymphocytes, 11 monocytes, 1 basophil and a sedimentation rate of 46. Other tests were essentially negative.

SURGERY: (June 28, 1975)

An excisional biopsy of the mass on the left side of the neck and a biopsy of the left tonsil were performed.

GROSS PATHOLOGY:

The specimen consisted of several fragments of tissue measuring up to 4.5 cm. in greatest dimension and was grossly felt to represent lymph nodes. Some of the fragments, when sectioned, had an irregulr nodular surface that bulged slightly above the cut surface. It was finely granular with a few small punctate hemorrhages present.

FOLLOW-UP:

In late 1975 the patient completed "spade" radiation of 4000 rads. The patient noted a progessively enlarging left cervical node in early December 1975 with left inguinal adenopathy noted in mid-January 1976. On physical examination the nontender cervical node measured 4 cm. with several shotty inguinal nodes also palpable. Although waxing and waning in size, over the next few months these nodes completely disappeared. He was last seen on October 5, 1976 in apparent good health with an ESR of 19 mm/hr. He had two episodes of pericarditis possibly related to radiation. Serum copper remains in the normal range.

CONTRIBUTOR: Grier Starr, M.D.
Sacred Heart General Hospital
Eugene, Oregon

DECEMBER 12, 1976 - CASE NO. 9
ACCESSION NO. 21971

TISSUE FROM: Left axillary lymph node

CLINICAL ABSTRACT:

This 61 year old nurse was seen at Mount Sinai Hospital in New York in 1951 for swelling of the right parotid gland which was biopsied and diagnosed as Sjogren's disease. She then moved to Florida where another parotid biopsy led to a diagnosis of Warthin's tumor; nonetheless, post-surgical x-ray therapy to the parotid was given. At the same time a diagnosis of lupus erythematosus was made and steroids were administered. A nonapparent elevated gamma globulin level was present. The patient's mother died of carcinoma of the breast and she has four brothers with hemophilia. The patient noted a lump in her left breast in May 1976 and a biopsy revealed in-situ ductal adenocarcinoma.

SURGERY: (May 3, 1976)

A simple mastectomy with an axillary dissection of enlarged lymph nodes was undertaken.

GROSS PATHOLOGY:

A portion of the specimen consisted of multiple soft, pinkish-tan lymph nodes from the axilla, measuring 6 and 4 cm. in diameter.

FOLLOW-UP:

The lymph nodes in the axilla and groin appeared markedly enlarged as of August 1976. A physical examination in October 1976 revealed that the lymph nodes had decreased in size from 4 cm. to approximately 1.5 cm. in diameter. In addition, there was persistent swelling of the right parotid gland. Radiation and chemotherapy was discussed with the patient, however, further therapy was refused.

CONTRIBUTOR: Victor Rosen, M.D.
David Brotman Memorial Hospital
Culver City, California

DECEMBER 12, 1976 - CASE NO. 10

ACCESSION NO. 21268

TISSUE FROM: Spleen

CLINICAL ABSTRACT:

This 69 year old Caucasian male was admitted on February 11, 1975 for a splenectomy. Patient had previously undergone a gastroenterostomy for obstructing duodenal ulcer disease.

Physical examination revealed the spleen to be palpable 4 cm. below the left costal margin.

Laboratory studies revealed hemoglobin 8.8 grams, hematocrit 26.6%, MCV 109, white blood cell count 4300 with 91% lymphocytes, 6% neutrophils, and 3% monocytes. One nucleated red cell was seen. Platelet count was 137,000.

SURGERY: (February 14, 1975)

A splenectomy was performed.

GROSS PATHOLOGY:

Specimen consisted of a 914 gram multilobular spleen measuring 15.5 x 13 x 9 cm. A small amount of fat was present at the hilus. The capsule was smooth and red-blue. Upon bi-section the tissue was rubbery, firm, and red-blue.

FOLLOW-UP:

As of October 11, 1976 the patient is alive and well. His leukemia appears to be under good control and he is under no treatment at all.

CONTRIBUTOR: Frank Glassy, M.D.
Sutter Community Hospital
Sacramento, California

DECEMBER 12, 1976 - CASE NO. 11

ACCESSION NO. 21955

TISSUE FROM: Right posterior thorax

CLINICAL ABSTRACT:

This 52 year old Caucasian male underwent a routine physical examination during which was noted intrascapular pain. The pain increased but remained localized without radiation or other symptoms. There were no systemic symptoms.

A chest radiograph showed a right posterior mediastinal mass measuring 6.5 x 4 cm. lying in the paravertebral gutter and without associated bony abnormalities.

SURGERY: (march 17, 1976)

A right thoractomy was performed with excision of the mass. Multiple clips were left outlining the location of the lesion.

GROSS PATHOLOGY:

The specimen consisted of numerous fragments measuring up to 6.5 cm. They were friable and slightly pink. Some areas showed hemorrhage. One fragment appeared well circumscribed measuring 6.5 x 6.5 x 3.5 cm. It weighed 37 grams and was gray-purple externally with a shaggy membrane present in some areas. Sections revealed uniformly pink-orange tissue with some bulging and narrow band-like structures suggesting fibrous septae.

FOLLOW-UP:

Postoperative work-up was normal including a normal bone survey, normal renal function, slight decrease of IgG and IgM and slight increase in IgA. Bone marrow contained only 7% plasma cells.

Patient had six weeks of radiation therapy. At the present time, he is showing no evidence of disease and is being checked every three months.

CONTRIBUTOR: Lynn Bevans, M.D.
LAC-USC Medical Center
Los Angeles, California

DECEMBER 12, 1976 - CASE NO. 12

ACCESSION NO. 18204

TISSUE FROM: Left axillary lymph node

CLINICAL ABSTRACT:

This 25 year old Black male was admitted in early 1969 for migratory myalgia and temperature of 105° to 106°. Patient was previously hospitalized in 1968 for fever with chills, sore throat, and cough treated with antibiotics without improvement. At that time he was noted to have some small cervical and supraclavicular nodes which were movable and nontender. Disease became multisystemic with neurologic, cardiac, respiratory, renal and hepatic manifestations but the patient improved spontaneously.

On physical examination, temperature was 102°. A few shotty cervical and submandibular nodes were palpated. There was some left quadriceps weakness and tenderness.

During hospitalization he developed a subcutaneous 3 mm. nodule in the left anterior thorax at the costochondral junction. Skin biopsy in this area as well as of the quadriceps were essentially normal. Lymphangiogram was abnormal but not nondiagnostic. Subsequently an axillary lymph node developed, biopsy of which was consistent with malignant lymphoma, Hodgkins.

SURGERY: (February 18, 1969)

An axillary lymph node biopsy was performed.

GROSS PATHOLOGY:

Specimen consisted of fragments of tissue measuring 4 x 2.5 x 0.7 cm. Portions were fibrofatty and hemorrhagic. One area contained yellow white semi-soft homogeneous tissue, measuring 0.7 cm. in diameter.

FOLLOW-UP:

He received radio and chemotherapy as well as antibiotics but, although there was brief improvement, his condition deteriorated and he expired on July 20, 1969.

At autopsy there was 1000 cc. of clear yellow fluid in the peritoneal cavity and 50 cc. in the pericardial cavity. Hepatomegaly (2280 grams) and splenomegaly (950 grams) were demonstrated. The lymph nodes showed generalized enlargement and the cut surfaces were firm, homogeneous, and light gray. Bronchopneumonia was present in both lungs. There were some scattered gray nodules, measuring from 0.2 to 2 cm., in the pericardium, myocardium, ureters, the serosa of the small bowel, pancreas and bone marrow.

CONTRIBUTOR: Stuart Sostrin, M.D.
LAC-USC Medical Center
Los Angeles, California

DECEMBER 12, 1976 - CASE NO. 13

ACCESSION NO. 21978

TISSUE FROM: Mediastinum

CLINICAL ABSTRACT:

This 8 year old Mexican-American male had been in good health until one week prior to admission when he came home from school with a stomach ache. Five days prior to admission his gums had been bleeding and he was not speaking well. He had also been vomiting at least once a day and had noted little "speckles" over his body. On admission he could not walk or move his left arm and eventually lost consciousness.

On physical examination the child was comatose with labored respirations and vomiting. The right pupil was fixed and dilated; the left was responsive. Several small lymph nodes were palpable in the anterior cervical and posterior cervical areas. The child was breathing with subcostal retractions. Lungs had rales bilaterally. Liver span was 14 cm. by percussion and the spleen was palpable 3 cm. beneath the costal margin. Numerous shotty lymph nodes were noted in the groin.

Shortly after admission both pupils became fixed and dilated and hemorrhages were noted on funduscopic examination. CBC revealed WBC of 500,000, mostly lymphoblasts. Bone marrow aspirate revealed predominantly blasts. The child died within 24 hours of admission.

GROSS PATHOLOGY: (Autopsy)

At autopsy the mediastinum showed a large firm, white-yellow, nodular mass measuring 18 x 14 cm. and weighing 250 grams in the thymic area which was firmly attached to the anterior pericardium. Surrounding lymph nodes were enlarged, irregular, and firm measuring up to 3.5 x 2.0 cm. Cut section revealed cavitation measuring 2.5 x 1.5 cm. with a mildly trabeculated inner surface. The innominate vein was surrounded but not invaded.

CONTRIBUTOR: Robert Woods, M.D.
Hollywood Presbyterian Med. Cen.
Los Angeles, California

DECEMBER 12, 1976 - CASE NO. 14

ACCESSION NO. 21970

TISSUE FROM: Inguinal lymph node

CLINICAL ABSTRACT:

This 70 year old female was seen for routine physical examination and was found to have some nodes in the right groin without evidence of any injury or inflammation in that area or in the right leg.

Follow-up examination revealed one node to be becoming smaller, but another one, below the inguinal ligament, appeared and was larger than the first one, measuring 2.8 cm. All inguinal nodes were smooth, movable, and nontender. No other adenopathy was noted including the left groin.

SURGERY: (March 29, 1976)

An excisional biopsy of the right inguinal nodes was performed.

GROSS PATHOLOGY:

The specimen consisted of a cord-like mass of externally yellow lobulated fatty tissue which measured up to 10.0 x 2.5 x 2.0 cm. Attached to one pole of this mass was a large externally encapsulated gray tan ovoid nodule which measured up to 4.5 x 2.5 x 2.2 cm. Sections through this large mass revealed an essentially homogeneous fleshy nonbulging gray surface with focal areas of hemorrhage. Sections through the cord-like portion of fatty tissue revealed the presence of multiple similar gray tan nodules, ranging in size from 1.5 up to 2.3 cm. in greatest dimension.

FOLLOW-UP:

As of October 18, 1976 patient was without complaints and was still on chemotherapy. Bolster radiation therapy was deferred by the patient until January 1977.

CONTRIBUTOR: Nathalie Orloff, M.D.
St. John's Hospital
Santa Monica, California

DECEMBER 12, 1976 - CASE NO. 15

ACCESSION NO. 22044

TISSUE FROM: Right axillary lymph node

CLINICAL ABSTRACT:

This 80 year old female was admitted to the hospital on November 11, 1975 for a biopsy and axillary node dissection. In October 1975 she had been hospitalized with complaint of a lump in the right arm which had been growing for approximately 6 months. On physical examination there was a large irregular indurated mass on the medial aspect of the right arm measuring 4 x 6 cm. This mass was excised on October 9, 1975. Bone marrow and blood findings were normal.

Current physical examination revealed one large palpable lymph node in the right axilla and a large hard fixed mass with overlying healed incisional scar on the medial aspect of the right arm just above the elbow. There was no generalized lympadenopathy.

Peripheral blood findings, isotope and spleen images and chest radiograph were all negative.

SURGERY: (November 18, 1975)

A right axillary lymph node dissection was performed.

GROSS PATHOLOGY:

The specimen consisted of multiple enlarged axillary lymph nodes with surrounding lobulated adipose tissue. The nodes ranged in size from 2.5 to 5.0 cm. in maximum dimension. On section the lymph nodes were tan, glistening, and homogeneous.

FOLLOW-UP:

In January 1976 patient received radiation therapy to the right upper arm, axilla, clavicle, and base of neck area. Patient is currently lost to follow-up.

CONTRIBUTOR: Philip Van Hale, M.D.
LAC-USC Medical Center
Los Angeles, California

DECEMBER 12, 1976 - CASE NO. 16

ACCESSION NO. 22057

TISSUE FROM: Tonsil

CLINICAL ABSTRACT:

This 75 year old Mexican-American male was in good health until February, 1974 when he noted difficulty swallowing. He had coughed a small amount of bloody material and had lost approximately 25 pounds of weight but had no other systemic symptoms.

On physical examination a fungating mass of the left hypopharynx was seen. Right submandibular nodes were nontender and slightly enlarged and on the left side of the neck there was a 3 x 4 cm. nontender mass. A biopsy on February 7, 1974 of the mass revealed undifferentiated malignancy.

SURGERY: (March 11, 1974)

The left tonsillar mass was excised.

GROSS PATHOLOGY:

The specimen consisted of a 5.5 x 4 cm. friable irregular piece of tissue with fish-flesh appearance. One surface had a mucosal lining. Upon bisectioning the general appearance was of a diffuse process with occasional areas of necrosis and nodulation.

FOLLOW-UP:

Bone marrow was negative. He received 2,000 rads to the tonsillar beds. COPP chemotherapy was started in March 1974 but was discontinued in early May because it was poorly tolerated. In early August 1974 a small 1 x 1 cm. hard subcutaneous nodule was noted beneath the skin over the right lower quadrant. There were no other masses. By late August, this had become a 4 x 4 cm. hard erythematous nontender mass with a second small .5 x .5 cm. mass in the left lower quadrant. These were subsequently biopsied and he was placed on Cytoxan and Prednisone. The patient expired on May 2, 1975.

AUTOPSY:

At autopsy numerous firm white matted lymph nodes were present in the retroperitoneum extending as a nodular mass into the pelvis. Periaortic and mediastinal nodes were also firm and enlarged. The spleen was grossly unremarkable, but the liver contained numerous small white nodules. Subcutaneous abdominal nodes were noted.

CONTRIBUTOR: Frank Glassy, M.D.
Sutter Community Hospital
Sacramento, California

DECEMBER 12, 1976 - CASE NO. 17

ACCESSION NO. 21964

TISSUE FROM: Axillary lymph node

CLINICAL ABSTRACT:

This 72 year old male had been in generally good health except for recent episodes of easy fatigability. He had also experienced diaphoretic episodes of 24-28 hours' duration every two to three months. Enlargement of the left axilla, left neck, left parotid, and left temporal regions was also present over this period. He had syphilis at age 20 which responded to treatment. VDRL has been negative since that time. For the 15 years prior to admission he has had left ingiunal adenopathy and in January 1974, he underwent a tonsillectomy for enlarged tonsils and recurrent bouts of tonsillitis. Changes noted in the tonsils at that time were suggestive but not diagnostic of toxoplasmosis. In July of 1974 a lymph node from the right neck region was biopsied. Lymph node changes at that time were interpreted as atypical lymphoid hyperplasia or suggestive of angioimmunoblastic lymphadenopathy.

Physical examination revealed a 2 cm. nodule over the left parotid with surrounding "fullness", a 4 x 3 cm. slightly tender nodule in the left axilla, and a 3 x 2 cm. nodule in the left groin, lateral to the femoral vessels. There was no splenomegaly but the liver was palpable 3 fingerbreadths below the right costal margin.

SURGERY: (February 19, 1976)

A biopsy of the palpable lymph nodes in the left groin and left axilla was performed.

GROSS PATHOLOGY:

The specimen consisted of several circumscribed nodules of soft homogeneous yellow-stained, fleshy pink-tan fragments of tissue measuring 6 x 4 x 3 cm. On section there was a focus of hemorrhage measuring 7 mm. in greatest dimension. No discrete granulomas or tumors were noted

FOLLOW-UP:

Patient apparently in good health.

CONTRIBUTOR: Frances Pincus, M.D.
Good Samaritan Hospital
Los Angeles, California

DECEMBER 12, 1976 CASE NO. 18

ACCESSION NO. 22111

TISSUE FROM: Inguinal lymph node

CLINICAL ABSTRACT:

This 18 year old male was first seen in June 1976 complaining of anorexia, cough, fever, and night sweats. At that time, he had bilateral hilar adenopathy by x-ray. A liver-spleen scan showed an enlarged spleen and normal liver. Bone scan was normal. A Gallium scan showed increased uptake in the perihilar mediastinal region and was more prominent on the right side. Skin tests for tuberculosis and cocci were negative. In July 1976 a thoracotomy with lung and mediastinal node biopsy was performed. There was progressive deterioration of the clinical condition with diffuse lymphadenopathy.

Physical examination revealed a 12 x 10 cm. mass in the right groin. He had lesions of the scalp, and lip, and ulceration of the buccal mucosa.

SURGERY: (August 19, 1976)

A biopsy of the mass in the right inguinal region was performed.

GROSS PATHOLOGY:

The inguinal biopsy specimen consisted of two enlarged lymph nodes, measuring 3.5 x 3.2 x 2 cm., and 5.5 x 4.4 x 1.9 cm. Both nodes showed opaque capsules, and a central replacement of lymph node with tan yellow, soft, smooth tissue with focal areas of necrosis and cystic change. A small rim of apparently residual lymph node was seen at the margin of one specimen.

FOLLOW-UP: (Rajinder P. Sambhi, M.D.)

Patient is presently undergoing radiotherapy and chemotherapy in San Diego. There are no new lymph node enlargements. Clinically, he is feeling better and improving.

CONTRIBUTOR: Virginia L. Swanson, M.D.
Childrens Hospital
Los Angeles, California

DECEMBER 12, 1976 - CASE NO. 19

ACCESSION NO. 21954

TISSUE FROM: Terminal ileum

CLINICAL ABSTRACT:

This 2 1/2 year old Mexican-American male was admitted to the Emergency Room on June 8, 1975 with a one month history of colicky epigastric pain, repeated non-bilious emesis, mild anorexia, and a nine pound weight loss. During the day prior to admission, pain became very severe and he was unable to tolerate feedings. There was no history of melena, hematemesis, diarrhea or mucus in the stools. The past history and family history were non-contributory.

Physical examination revealed the patient to be moderately ill but in no acute distress. The abdomen was scaphoid with a tender, mobile, firm, right upper quadrant mass measuring 3 cm. in diameter. Bowel sounds were normal. A rectal examination was normal except for trace positive occult blood. The remainder of the examination was normal.

Laboratory Data: Hematocrit 28.2, hemoglobin 8.8, WBC 13,000, platelets 550,000, and sed rate 30. Barium enema disclosed ileocolic intussusception with a probable lead point mass.

SURGERY: (June 10, 1975)

An exploratory laparotomy was performed with removal of 13 cm. of distal ileum, 6 cm. of ascending colon, together with the cecum and appendix. Surgical findings disclosed a tumor of the terminal ileum acting as a lead point into an ileocolic intussusception. Approximately 1.5 cm. proximal to the ileocecal valve there was a polypoid mass.

GROSS PATHOLOGY:

The specimen consisted of a 4 x 3.5 cm., homogeneous yellow tan polypoid mass.

FOLLOW-UP:

The patient has remained well since discharge in June 1975. Chemotherapy plus cranial radiation and intrathecal methotrexate were planned. A normal isotope lymphangiogram was recorded on February 20, 1976.

Because of technical difficulties some slides may not illustrate the ileal mucosa present on the original sections.

CONTRIBUTOR: Alfred Kung'u, M.D.
University of Nairobi
Nairobi, Kenya

DECEMBER 12, 1976 - CASE NO. 20

ACCESSION NO. 22135

TISSUE FROM: Periorbital region

CLINICAL ABSTRACT:

This 15 year old male had a mass in the periorbital region for an uncertain length of time.

Laboratory findings showed a hemoglobin of 12 grams and a total white blood cell count of 8,000. The peripheral blood smear was not examined.

SURGERY:

The periorbital mass was excised.

GROSS PATHOLOGY:

The only gross description available is that it was described grossly as being greenish in color.

FOLLOW-UP:

Patient returned to the "bush country" distant from the hospital in Nairobi.

CONTRIBUTOR: Robert J. Lukes, M.D.
LAC-USC Medical Center
Los Angeles, California

DECEMBER 12, 1976 - CASE NO. 21

ACCESSION NO. 21824

TISSUE FROM: Spleen

CLINICAL ABSTRACT:

This 38 year old Mexican-American male was referred to this hospital on March 3, 1976 for further evaluation and chemotherapy of probable metastatic adenocarcinoma of the lung. The patient noted gradual onset of increasing malaise, some anorexia, 15 lb. weight loss, nonproductive morning cough, productive of greenish white material beginning September 1975. He also experienced occasional "bed soaking", nightsweats with associated fever and chills.

Past history revealed while he was in custody at the Correctional Rehabilitation Center for drug abuse (20 years' duration), a 57 cm. noncalcified irregular mass involving the left upper lobe of the lung was found on routine chest x-ray. Mediastinoscopy and bronchoscopy were non-diagnostic and he subsequently underwent a thoractomy with left upper lobectomy on January 30, 1976. Pathologic evaluation of the lesion revealed undifferentiated carcinoma. From December 17, 1975 to March 1, 1976 he received cobalt 60 radiation to his left upper lobe and mediastinum to a total of 2250 rads.

A liver-spleen scan performed on March 9, 1976 showed multiple defects in the spleen. Bipedal lymphangiogram showed positive peri-aortic lymph nodes. He had a positive PPD for which prophylactic INH therapy was begun. In 1961 he had a positive VDRL and a positive FTA for which he received penicillin therapy.

Laboratory Data: Hemoglobin 12.9, WBC 7,900 with a differential of 70 polys, 24 lymphocytes, 6 monocytes and normal platelets. Bone marrow and aspiration showed no evidence of neoplasm. Serum immuno-electrophoresis showed IGG 1,450 (600-2000), IGA 195 (50-400), and IGM 390 (40-250).

SURGERY: (April 8, 1976)

A staging laporotomy with splenectomy, liver biopsy, bone biopsy, and periaortic lymph node biopsy was performed. Tumor grossly involved the spleen, pancreas, stomach, and retroperitoneum.

GROSS PATHOLOGY:

The spleen was grossly enlarged with a wrinkled translucent capsule. On the hilar edge there was a large firm glistening yellow white tumor which bulged above the capsule and measured 5.0 x 4.5 x 4.0 cm. On the convex surface there were two bulging lobules. Cut section revealed a normal splenic parenchyma overlying these lobules, the largest of which measured 4.2 x 3.4 cm. Numerous other well circumscribed soft yellow white nodules were present within the spleen, ranging from 1.5 to 5.8 cm. The central portions of the larger nodules appeared yellow orange and very necrotic.

FOLLOW-UP:

The patient received 2400 rads from May 17 to May 28, 1976. On July 27, 1976 he was seen at the hematology clinic where it was decided to initiate CABOP protocol.

CONTRIBUTOR: Harry Bauer, M.D. DECEMBER 12, 1976 - CASE NO. 22
Martin Luther King Jr. Hospital
Los Angeles, California ACCESSION NO. 22114

TISSUE FROM: Cervical lymph node

CLINICAL ABSTRACT:

This 30 year old Black female was admitted in late August 1976 with a history of fever, diarrhea, painful lymphadenopathy and rash, which begun on the back and spread over the entire body. Nausea and vomiting with right upper quadrant pain of 3 to 4 months' duration was also present. She had a two year history of "black out spells," one resulting in an auto accident. A neurologist briefly placed her on Dilantin for these black out spells.

Physical examination revealed a generalized maculopapular rash, involving the trunk, face, and extremities. There was generalized tender lymphadenopathy involving cervical (especially on the right), axillary, and inguinal nodes. Abdominal examination revealed guarding.

Laboratory Data: Hemoglobin 13.8 and WBC 29,400 with differential of 24 segs, 10 bands, 56 lymphs, 1 eos, and 9 monos. Platelets adequate.

SURGERY: (August 30, 1976)

A right cervical node was removed.

GROSS PATHOLOGY:

The specimen consisted of cervical node measuring 2.5 x 1.5 x 1 cm. It was homogeneous on cut surface.

FOLLOW-UP:

Lymphadenopathy disappeared following treatment with steroids. Patient feels well,however the rashes are still present.

CONTRIBUTOR: Hank Williams, M.D.
LAC-USC Medical Center
Los Angeles, California

DECEMBER 12, 1976 - CASE NO. 23

ACCESSION NO. 21898

TISSUE FROM: Right neck

CLINICAL ABSTRACT:

This 14 year old Black male was well until two months prior to admission when he developed the flu. However, a mass appeared on the left side of his neck after a few days. This was initially treated with ampicillin without improvement. In fact, the mass increased in size. PPD was negative. On April 16, 1976 a cervical lymph node biopsy showed reactive hyperplasia. One week prior to admission he developed dysphagia with sputum production. Additional symptoms included anorexia, epistaxis, and decrease in hearing.

On physical examination an 8 x 7 x 4 cm. mass was palpated over the right sternocleidomastoid muscle, extending from 2 cm. above the right clavicle. Several shotty right supraclavicular and inguinal lymph nodes were palpated. Abdominal examination revealed no organomegaly.

SURGERY: (May 10, 1976)

The mass was excised from the right neck along with several cervical lymph nodes.

GROSS PATHOLOGY:

Specimen consisted of a 4 x 6 cm. mass with a shiny capsule. Cut surface was tan and nodular. Fibrous bands with areas of necrosis were evident.

FOLLOW-UP:

A bone marrow particle and smear on May 17, 1976 showed possible rouleaux and granuloma formation. Culture of lymph node showed no growth. On May 21, 1976 a staging laporatomy was performed which was essentially negative. He received radiotherapy to his right lower neck between May 28, and August 9, 1976. On August 14, 1976 he was seen in the pediatric hematology clinic and had a white count of 2,700 with 47 polys, 3 bands and 31 lymphocytes. Although chemotherapy was planned, it was withheld.

CONTRIBUTOR: Margarete Rose, M.D.
LAC-USC Medical Center
Los Angeles, California

DECEMBER 12, 1976 - CASE NO. 24

ACCESSION NO. 22126

TISSUE FROM: Right cervical lymph node

CLINICAL ABSTRACT:

This 7 year old Mexican American female had an enlarged left neck mass, several months' duration. Patient was followed in ENT clinic and was scheduled for elective resection of probable branchial cleft cyst.

Past medical history: Patient had a hernia repair in 1971, tonsillectomy and adenoidectomy in 1974, and hepatitis in February 1976. She was also recognized as being mentally retarded and seen in general pediatrics clinic for chronic left otitis media.

Physical examination: The ears showed scarred ear drums due to previous surgery and infection. There was a 3 x 2 cm. cystic mass in the superior 3rd of the left sternocleidomastoid muscle. The mass was mobile and nontender. There was no abdominal organomegaly or adenopathy.

Laboratory studies: Hemoglobin 12.4, WBC 7,200, no differential.

SURGERY: (October 22, 1976)

Bilateral myringotomies and excision of left neck mass were performed.

GROSS PATHOLOGY:

The specimen consisted of a soft, oval tan tissue mass which measured 3 x 2 x 2 cm. On cut surface it was composed of tan soft bulging tissue.

FOLLOW-UP:

Patient was discharged on October 24, 1976, and doing well.

CONTRIBUTOR: Mark Beck, M.D.
LAC-USC Medical Center
Los Angeles, California

DECEMBER 12, 1976 - CASE NO. 25

ACCESSION NO. 22043

TISSUE FROM: Tonsil

CLINICAL ABSTRACT:

This 6 month old male patient was seen during routine physical examination and noted to have a mass in the right tonsil. There was no evidence of fever, local inflammation, adenopathy, or systemic symptoms.

Laboratory work-up was minimal. Chest radiographs were not available.

SURGERY:

Removal of the mass was performed.

GROSS PATHOLOGY:

Specimen consisted of several fragments of tissue measuring up to 4 cm. in greatest dimension. Externally the tissue was cerebelliform. On cut section it was slightly friable and gray-tan.

FOLLOW-UP:

Not available.

CONTRIBUTOR: Roger Terry, M.D.
LAC-USC Medical Center
Los Angeles, California

DECEMBER 12, 1976 - CASE NO. 26

ACCESSION NO. 22136

TISSUE FROM: Left lung

CLINICAL ABSTRACT:

This 68 year old Black female complained of left shoulder and neck pain of 6 months' duration. She denied any respiratory symptoms and did not smoke.

Chest radiographs in the Ortho Clinic revealed a left hilar and parenchymal mass and she was admitted October 4, 1976 for further evaluation.

Physical examination revealed occasional rhonchi and moist rales in the mid-left lung field.

Laboratory Data: Skin tests for tuberculosis, cocci and histoplasmosis were negative. Sputums for AFB and cytology were negative. Bronchoscopy revealed an infiltrating lesion at the left lower lobe orifice with deformity of subsegmental bronchi. Biopsy and brushings were both negative. Mediastinoscopy of carinal and left mediastinal nodes revealed no tumor.

SURGERY: (October 26, 1976)

A left pneumonectomy was performed. The surgeon felt that the lingula and superior segment of the left lower lobe were primarily involved.

GROSS PATHOLOGY:

The specimen consisted of a lung with a shiny bluish gray pleural surface except in the left lingula which had a whitish tan tinge. The surgical margin of the bonchus was normal, but the section of the tracheal bronchial tree revealed infiltration by tumor. The bronchial mucosa was yellowish-white, smooth, and glistening. Eight peribronchial lymph nodes were dark black, soft and homogeneous throughout, the largest measuring 1.1 cm. in diameter. The left upper lobe weighed 170 grams and the remaining lingula and left lower lobe weighed 300 grams. The upper lobe was crepitant and tannish-brown in color. The lingula was firm and whitish-tan on cut section. The pulmonary arteries contained a reddish-black thrombus near the origin of the arteries to the left upper lobe.

FOLLOW-UP:

Postoperative progress was unremarkable. In fact the patient improved to the point that she was discharged 8 days after her operation.

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PHILIP VAN HALE, M.D., RESIDENT IN PATHOLOGY, LAC-USC MEDICAL CENTER
LYNN BEVANS, M.D., RESIDENT IN PATHOLOGY, LAC-USC MEDICAL CENTER