



February Autopsies

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I. CASE REPORTPERFORATED PEPTIC ULCER

J. M. Nelson

, white male, age 77 years, admitted to University of Minnesota Hospitals 6-19-34.

History

Well until one week prior to admission when he had a severe attack of dull, diffuse pain throughout the entire abdomen. The following day, the pain was so severe that it incapacitated him. The pain persisted, became more severe. His attack was associated with complete loss of appetite and he was unable to obtain rest at night. The pain was referred to a region above the umbilicus, but was not localized to any particular point. There was no history of nausea or vomiting or bloody stools.

Physical Examination

White male, well developed, slender build. Acutely ill. Abdomen - distended, marked tenderness, particularly around umbilicus with tenderness extending into right and left upper quadrants; generalized rebound tenderness and rigidity present throughout abdomen. Rectal - generalized tenderness.

Laboratory

Urine - many leucocytes. Blood - hemoglobin 98%, leucocytes 28,650.

Impression

Generalized peritonitis, etiological factor unknown. Possibilities: Pancreatitis, cholecystitis, ruptured appendix, perforated ulcer.

Course

Temperature 98.4; fluctuated from normal to 101. Pulse rate 60. Blood pressure 108/62. Placed on conservative treatment, including nasal suction. X-ray of abdomen - distention of all loops of bowel, colon, and extreme dilatation of stomach; large amount of fluid in stomach as well as in some loops of bowel; fluid level in right upper quadrant.

Ten days following admission: Findings became localized to right upper

quadrant. Subphrenic abscess suspected.

6-26-34 - X-ray: Large subphrenic abscess on right side; right diaphragm displaced upward and right costophrenic angle totally obliterated.

7-5-34 - Barium administered by mouth passed into the abscess cavity. Difficult to determine whether perforation was in stomach or duodenum.

8-3-34 - G.I. study: No evidence of passage of barium into abscess cavity.

8-13-34 - Flat plate of abdomen: Abscess cavity in right upper quadrant with fluid level. General condition good.

8-26-34 - Discharged with instructions to return for follow-up.

9-24-34 - Readmitted - X-ray: persistence of right subphrenic abscess; fistula apparently closed. Treatment: Aspiration of abscess cavity with needle and syringe on two occasions; following the second aspiration, a trocar was used to insert a #16 catheter into the cavity which was irrigated with Dakin's. The drainage was at first bloody but later became purulent and foul.

10-27-34 - Has regained strength and appetite. Discharged.

2-17-35 - Readmitted. Physical examination: Essentially negative. X-ray: small subdiaphragmatic abscess, right. General condition good. Gaining weight, abscess cavity apparently becoming smaller, no further treatment at present.

2-21-35 - Discharged.

II. ABSTRACTTREATMENT OF THE FORME FRUSTE TYPE OF PERFORATED PEPTIC ULCER

Singer, H.A. and Vaughan, R.F. S.G.O. 6: 945 (June) 1932.

Symptoms

1. Sudden onset of severe violent upper abdominal pain.
2. Profuse sweating.
3. Anxiety.
4. Pain not infrequently radiates to back and shoulder.
5. Usually a previous history of epigastric distress can be obtained.

Physical

1. Abdominal tenderness and rigidity.
2. Leucocytosis.

Differential Diagnosis

1. Coronary thrombosis.
2. Diaphragmatic pleurisy.
3. Cholecystitis.
4. Tabetic crisis.
5. Gastritis.
6. Colitis.
7. Pyelitis.

X-ray Findings

Of 35 cases observed in Cook County Hospital, Chicago, Warfield found pneumoperitoneum in 43.5%.

Plan Followed and Operative Mortality

1. The first few hours after perforation: 4 to 5% mortality.
2. Twelve to 24 hour cases are usually operated upon unless "evidence is clear that the peritonitis is closely limited and is in a stage of recession."
3. Second day and third day after perforation: No operation if peritoneal reaction has almost subsided and condition of patient is excellent.
4. Forme fruste type if recognized in the first 24 hours is operated upon immediately regardless of severity or mildness of the symptoms.
5. Singer and Vaughn operate upon 48 hour perforations if the symptoms and signs do not point to indubitable spontaneous closure.
6. Spontaneous recuperation occurred

in 40 forme fruste cases in Cook County Hospital in a period of 18 months.

III. FEBRUARY AUTOPSIES

Department of Pathology

1. , 24
Urology,
Hydronephrosis. Pyelonephritis.

Case of vesico-vaginal fistula as a complication of labor.

6- -29 - Gave birth to a female child. Developed a vesicovaginal fistula. Urine began to dribble and soon she had no control of urination.

7- -29 - Treated for fistula. From this time until last admission (12-3-34), she had 14 operations for vesico-vaginal fistula. Fistula had been reduced to a very small size, but it proved impossible to reconstruct the urethra, and patient was referred to the urological service for implantation of the ureters into the sigmoid.

12-5-34 - Right ureter transplanted into sigmoid by technique of Cabot. Uneventful convalescence.

12-31-34 - Left ureter similarly treated, following which patient did well until a hematoma developed in the wound. This was drained. Thereafter, patient had severe nausea and vomiting, and marked loss of weight. Patient's condition went gradually downhill notwithstanding the fact that her blood and metabolites remained at a normal level. There was a large urinary excretion by way of the rectum.

1-30-35 - N.P.N. - 41.6 mgs.

2-1-35 - Expired.

Autopsy

Body is of emaciated, poorly developed, white girl, 24 years old, measuring about 152 cm. in length and weighing approximately 80 lbs. Bilateral inguinal scars, 18 cm. long; right being well healed but left shows a small fistulous tract.

Main Peritoneal Cavity shows no excess fluid or adhesions.

Pleural Cavities and Pericardial Sac contain no adhesions or excess fluid.

Heart weighs 150 grams. Some serous atrophy. Valves are smooth. No fibrosis of myocardium. Coronaries are soft and patent.

Right Lung weighs 200 grams, Left 150. No areas of consolidation or hemorrhage. Spleen weighs 100 grams and is somewhat soft.

Liver weighs 1100 grams and shows no hemorrhage, necrosis or tumors.

Gastro-Intestinal Tract shows no hemorrhages or tumors. Anastomosis between ureters and sigmoid are well healed and patent. Small amount of blood and some purulent exudate, extraperitoneally, on left side in iliac fossa.

Pancreas and Adrenals show no hemorrhages or tumors.

Both Kidneys and sigmoid portion of colon are removed en masse. Slight degree of hydronephrosis on left. Right pelvis not dilated or injected. No cortical abscesses. Left kidney somewhat pale. Left ureter slightly dilated and thickened.

Head and Neck - not examined.

Diagnosis

1. Vesicovaginal fistula with ureterosigmoidoscopy.

2. Small extraperitoneal hematoma, left side, infected.

3. Hydronephrosis and hydroureter, left.

4. Probable pyelonephritis.

5. Inanition.

2. . . . , age 54.

Surgery,
Carcinoma of Lung (undifferential cell type).

Present complaints:

Severe dyspnea since August 1934

associated with chronic cough, moderate sputum, pain across chest posteriorly, loss of weight, anorexia and weakness.

P.I. States that he had pneumonia in August 1934 since which he has never fully recovered. Dyspnea persisted ever since. No hemoptysis. Sputum frothy and white. Weight loss of 20 to 25 lbs. since onset of trouble. At present, very weak and tired.

Past History

Health good until P.I. Gastro-enterostomy in 1909 for ulcers.

Physical Examination

1-17-35 - Admitted. Dyspneic, ill appearing, middle-aged, white male showing marked emaciation. Chest - respirations rapid and shallow, breath sounds greatly diminished over entire chest and accentuated on right, few rales in right base, left chest dull, bronchial breathing and whispered voice in left axilla and posterior left chest; heart - blood pressure 116/74, rapid rate and regular, no murmurs. Abdomen - negative. Genitalia - scar on right side of scrotum.

Laboratory

Urine - negative. Blood - hemoglobin 60%, leucocytes 20,250, erythrocytes 3,210,000, neutrophils 89%, lymphocytes 11%. Blood Wassermann and Kahn - negative. Fluid from pleural cavity - sterile on culture. X-ray shows large mass in left chest, strongly suggesting large tumor arising in left mediastinum, probably bronchogenic carcinoma, and extending into lung with secondary pleural effusion. Lipiodol examination - Main stem bronchus on left side partly filled and definite obstruction is met with about 3 cm. from bifurcation. Conclusions: Probable bronchogenic carcinoma with obstruction of left main bronchus. Progress: Bronchoscopic examination - normal right bronchi. Because of compression, opening in left main bronchus appears as a slit to left of carina and bronchoscope cannot be passed through. Course in hospital largely afebrile, temperature usually below normal but occasionally rising to 100. Pulse and respirations markedly increased.

2-3-35 - Expired.

Autopsy

Limited to chest.

Huge lobulated, yellowish-white mass occupying entire left side of mediastinum and anterior portion of left pleural cavity. Tumor has grown through the pericardium and appears as nodules on both the parietal and visceral pericardium. Heart muscle itself is invaded by tumor. Tumor mass in lung compresses and practically closes off the left main bronchus, about 8 cm. below the bifurcation. The main mass of the tumor involves the lower lobe of the lung. Extensive atelectasis and a few scattered areas of consolidation.

Diagnosis

1. Carcinoma of left lung (undifferentiated cell type).
2. Metastases to mediastinum, pleura, pericardium, heart.
3. Atelectasis and suppurative pneumonitis, left lung.

Microscopic

Undifferentiated blue staining cells in cords and nests. Small, round, hyperchromatic nuclei surrounded by a thin ring of cytoplasm. No tendency to keratinization or to glandular formation. Infiltration of pericardium and heart muscle.

12. , age 56.

Surgery, 1

Bronchogenic carcinoma right (adenocarcinoma type, metastases to brain).

Present complaints

Chronic cough, dyspnea, hemoptysis, weight loss and anorexia for 7 months.

7- -34 - Developed cough associated with dyspnea.

9- -34 - Hemoptysis, 5 to 6 times daily. No pain in chest. Examined in tuberculosis sanatorium - negative Mantoux. Weight loss of 20 lbs.

1-24-35 - Admitted.

Physical Examination

Lungs - fair expansion; dullness in right base, coarse rales in both bases, breath sounds diminished in right lower lobe; respirations 30. X-ray of chest: extensive density in right lung, around mediastinum and infiltrating right lobe. Conclusions - bronchogenic carcinoma, probably, right lower.

While patient was being taken to the hospital, he had a convulsive seizure.

Laboratory

Urine - negative. Blood - hemoglobin 66%, erythrocytes 3,030,000, leucocytes 5,000. Blood Wassermann and Kahn - negative. Sputum - negative for tubercle bacilli.

Course

1-25-35 - Lipiodol examination - medial branch of right lower lobe bronchus fails to fill; middle lobe bronchus fills satisfactorily. Conclusions - probable bronchogenic carcinoma, medial branch of right lower lobe. Following biopsy, another lipiodol is done.

2-4-35 - Lipiodol examination - complete block in right bronchus just at bifurcation.

During his stay in the hospital, he gradually became worse. Temperature ranged from 98 to 101.

2-16-35 - Expired.

Autopsy

Lungs together weigh 2200 grams. Right lung: irregular consolidation in lower portion with large necrotic multilocular abscesses. In right main bronchus, 2 cm. below bifurcation, flat, friable, papillary mass projecting into lumen. Tumor appears largely as a whitish induration of the bronchial mucosa. Most of the changes in the lung appear to be due to obstruction of the bronchi.

Brain: Slight but definite flattening and widening of convolutions in left frontal lobe. Two yellowish, fairly firm nodules in frontal lobe on left. A nodule of similar size and appearance

in posterior part of corpus callosum.

Diagnosis

1. Bronchogenic carcinoma, right lung.
2. Metastasis to brain.
3. Abscesses, pulmonary, right.
4. Gangrene, pulmonary, right.
5. Congestion and edema of lungs, bilateral.
6. Empyema, subacute, right, pleural.
7. Emaciation.

Microscopic

Flat cuboidal cells with a round nuclei and a relatively large rim of cytoplasm, in glandular and pseudoglandular arrangement. No keratinization and no pseudomucinous areas. The brain metastases are identical in appearance with the lung tumor.

ABSTRACT:

Geschickter, C. F., and
Denison, R.
Primary Carcinoma of Lung
Am. J. of Cancer 22, #4: 854,
(Dec.) 1934.

Clinical features

"Apparently primary tumors of the lung are on the increase. All the larger series of cases have been compiled in the past few decades. Rosahn in a review of the material at the Boston City Hospital stated that the incidence of the disease had risen from 4.39 per cent in 1910-19 to 6.98 per cent in 1920-29. Adler in 1912 collected one of the earliest large series of cases (over 300), and in recent years numerous authors have reported series ranging from 20 to over 100 cases. The tumors are more frequent in males than females and occur between the twentieth and seventieth years of life. The course is rapid, the patients rarely surviving more than a year. Radio-active substances, heavy oils and tar, and chronic inflammatory diseases of the lung are believed to be predisposing factors. The etiological significance of these agents, however, is not well established. Chimney sweeps, aniline and paraffin workers, and miners working with radio-active minerals have been known to develop the disease twenty or thirty years after exposure. The most conclusive series of cases from an etio-

logical point of view are those reported among the miners of Schneeberg and Jachymov after long contact with radioactive ores.

"The disease may exist for a considerable time without symptoms. When these occur they may be related to the lesion in the lung or to the metastases. There are cough, dyspnea, pain in the chest, and occasionally fever and night sweats. Frank hemoptysis is a late sign."

ABSTRACT:

Entdifferentiation in bronchogenic carcinoma.

Samson, Paul C.

The Am. J. of Cancer, 23, #4:
741, April 1935.

The relation of cell type to metastasis in bronchogenic carcinoma.

Samson, Paul C.

The Am. J. of Cancer, 23, #4:
754, April 1935.

"There is now abundant and convincing proof that all varieties (as to cell type) of carcinoma primary in the lung may take origin from the epithelial structures of the bronchial tree. Also there is practically no evidence that any cell type is characteristic of any given level of that tract."

According to Samson, the cell type in the neoplasm depends upon the degree of differentiation attained. He divides the bronchogenic carcinomas into 3 groups: (1) Columnar or cubical-celled, papilliferous, mucin-forming.
(2) Cornifying squamous-celled,
(3) Undifferentiated-celled.

He made a survey of 100 cases of bronchogenic cases in which there were complete autopsies with adequate microscopic control. Fifty-one per cent were adenocarcinoma, 30 per cent squamous-cell and 19 per cent undifferentiated-celled carcinoma. The adenocarcinomas showed a strong tendency to involve the central nervous system, adrenals, kidneys, both lungs, and to some extent the liver." He explains

this on the basis of predominant hematogenous metastasis. "The squamous-celled series showed a marked tendency to local extension rather than widespread metastasis, involving the pericardium and bronchial lymph nodes to some extent." He felt that this is the group which offers the best prognosis for radical removal. The undifferentiated small-celled carcinomas showed extensive lymphogenous metastases with involvement of pancreas, liver and spleen.

3. J. J., 73
Urology, no autopsy.
Bladder Calculi. Hypertrophy of prostate.
4. C. J., 26
Surgery, I
Perforation of ileum.
Generalized peritonitis.
5. I. J., 15
Pediatrics, no autopsy.
Rheumatic heart disease.
6. J. J., 63
Surgery, no autopsy.
Hodgkin's disease.
7. J. J., 76.
Urology, .
Carcinoma of bladder.

Present complaints

Hematuria, incontinence, weakness, edema of ankles.

1932 - Urinary frequency and diminution of size of stream. Developed hematuria which has progressively become worse.

1934 - Marked incontinence. Able to control urine if he passes it frequently. Has become very weak. Ankles swollen. Abdomen has become large.

1-11-35 - Admitted.

Physical Examination

Bright red blood in urine. Slightly enlarged prostate. Blood pressure 154/80.

Pitting edema of both ankles.

Laboratory

Urine - cloud of albumen, many erythrocytes. Blood - hemoglobin 32%, erythrocytes 2,400,000, leucocytes 13,200. N.P.N. - 37.6. Wassermann - negative. Cystoscopy - numerous clots. Bladder extensively involved by multiple papillary neoplasms. Specimen for biopsy shows a grade IV squamous cell carcinoma. Blood transfusions given until hemoglobin rose to 45%.

1-15-35 - Operation: Spinal anesthesia. Multiple vesicular neoplasms electrocoagulated. For a time after operation, he did well and then became febrile. Pulse became rapid.

2-8-35 - Expired.

Autopsy

Body of emaciated, 76 year old, white male measuring about 169 cm. in length. Incision from umbilicus to symphysis with fistulae in lower and upper part.

Peritoneal Cavity contains no adhesions or excess fluid. Appendix normal. Pleural Cavities contain numerous adhesions on both sides. Pericardial Sac contains no excess fluid or adhesions. The Heart weighs 400 grams. Valves are smooth. No fibrosis of muscle. Root of Aorta shows a marked degree of atherosclerosis. Coronaries show a mild degree of atherosclerosis.

Right Lung weighs 900 grams. Consolidation of upper and lower lobes. Left Lung weighs 400 grams. No consolidation. Spleen weighs 75 grams. Hyaline perisplenitis present.

Liver weighs 1300 grams. No tumors or abscesses.

Gall-Bladder distended. No stones or tumors.

Gastro-Intestinal Tract - no hemorrhages or tumors.

Pancreas - no hemorrhages or tumors.

Adrenals - no hemorrhage or necrosis.

Right Kidney weighs 100 grams. Hydronephrosis and hydroureter. Small cortical abscess. Left Kidney weighs 150 grams. Hydroureter. Pelvis injected.

Bladder shows necrotic cystitis. Practically all the tumor has been removed.
Genital Organs: contain no tumors.
Aorta shows a marked degree of arteriosclerosis.
Head and Neck - not examined.

Diagnosis

1. Squamous cell carcinoma of bladder.
2. Hydronephrosis, right.
3. Pyelonephritis.
4. Bronchopneumonia.
5. Operative incision.

Microscopic

Kidney - atrophy of tubules and nests of leucocytes including pmn's throughout the parenchyma.

ABSTRACT:

The standard treatment of malignant tumors of the bladder.
 Lower, W. E.
 S.G.O. 60, #2A: 513, (Feb. 15), 1935.

"The methods of treatment of carcinoma of the bladder have included fulguration, cauterization, diathermy, radiation with radium and roentgen rays, and various types of surgical removal, including excision, partial resection of the bladder and total cystectomy. All of these methods are still in use, and each has a definite field of usefulness, depending on the indications in the individual case determined by such factors as age, general condition, type of neoplasm, grade of malignancy, and the site of the lesion, as well as the technical skill and experience of the operator."

"In cases in which local excision or resection of a tumor of the bladder is impossible, total cystectomy may be done with the assurance of relief from the distressing symptoms attendant on an ulcerated, infected lesion in the bladder. Because of the relatively low incidence of distant metastases from bladder neoplasms, the indications for so radical a procedure as cystectomy are greatly enhanced."

Barringer feels that radium treatment is the method of choice. At the Memorial Hospital, in a series of 98 cases in

which the clinical diagnosis was supported by biopsy, approximately 50% of the patients with papillary carcinoma and 30% of the patients with infiltrating carcinoma were alive and had no evidence of disease, according to cystoscopic examination, at the end of 3 years.

"The accessibility of the tumor must govern the choice of transurethral or transvesical approach, and in all instances, an attempt should be made to apply a sufficiently large primary dose to destroy the tumor completely."

"Although surgical removal and radiation are respectively the most important methods of treatment in cases of carcinoma of the bladder, fulguration and cautery may still be useful in certain cases, especially in very small lesions, extremely early growths, or those of a very low grade of malignancy. The important point, of course, is to destroy the lesion entirely, and if that can be done by some less radical procedure, the results obtained may be excellent."

"Surgical diathermy has been advocated by a number of urologists, and seems to produce good results in certain cases in which operation can be performed."

"The Carcinoma Registry of the American Urological Association has estimated that metastasis occurs in only 10 per cent of the cases."

"The Carcinoma Registry found in an analysis of 902 epithelial tumors of the bladder that there had been a recurrence in 46 per cent of the cases."

In its recent report, the Registry, in a study of 902 cases, gave the 5-year survivals as 33%. Lower points out that each patient must be carefully followed after operation or radium therapy in order that recurrences may be discovered early.

8. Baby Boy . . . Stillborn.
 Pediatrics, no autopsy.
 Premature. Stillborn - 7 months.

9. 7 days.
Pediatrics,
Prematurity. Cerebral hemorrhage.
10. , 76.
Medicine,
Hypertrophy of Heart. Infarction
of lungs and right kidney.
11. Baby Girl , Stillborn.
Pediatrics, no autopsy.
Anencephalic Monster.
13. , 22.
N & T, no autopsy.
Meningitis secondary to brain
abscess of left frontal lobe.
14. , 1
Pediatrics,
Miliary tuberculosis.
15. , 62.
Neurology,
Hypernephroma.
- Case of 61 year old, white male
with a large mass in the left flank.
Operative removal of left hypernephroma.
Later developed signs of metastases to
brain.
- Autopsy revealed metastases to
lung and brain.
16. , 39
Medicine,
Hypertension.
17. , 57
Medicine,
Coronary arteriosclerosis.
18. Baby Girl , 1+ mo.
Pediatrics, no autopsy.
19. , 1.
Pediatrics, no autopsy.
Bronchopneumonia, bilateral.
20. , 57
Medicine,
Hypertension. Bronchopneumonia.
21. , 23
Medicine,
General septicemia.
22. , 35
Surgery, no autopsy.
Pulmonary tuberculosis.
23. , 3+ mo.
Pediatrics,
Bronchopneumonia, bilateral.
24. , 1
Pediatrics,
Pneumonia, bilateral.
25. Baby Boy ' , 0
Pediatrics, no autopsy.
Intrauterine death of fetus,
7 mo.
26. , 18
Medicine, /
Hodgkin's disease. Case with
interesting anemia.
- Case of white female, 17 years
of age.
- 9- -32 - Gastro-intestinal upset.
Cough for few days. First noted swell-
ing of left cervical gland. Soon
afterward, glands in left axilla became
swollen. Swelling painless except for
occasional attack in left side.
- 11-2-32 - Admitted.
- Physical Examination
Reveals well-developed, well-
nourished, white female. Large, firm,
discrete glands and some small glands
freely movable in left anterior region
of neck. Large, firm, discrete, freely
movable glands in left axilla. Clin-
ical impression: Hodgkin's disease.

Laboratory

Urine - negative. Blood - hemoglobin 73%, erythrocytes 3,780,000, leucocytes 7,000, neutrophiles 80%, lymphocytes 20%. Biopsy of lymph node - shows marked reticular hyperplasia with multinucleated giant cells.

Course

Given deep x-ray treatment and was advised to return for further check-up.

12-1-32 - Discharged.

Patient followed in O.P.D. 1-4-33 - more x-ray therapy and repeated 2- -33. Following this, she seemed to do remarkably well until the summer of 1934.

Summer - 1934 - Enlargement of spleen and abdominal masses.

6-11-34 - X-ray of chest taken. Enlarged nodes in mediastinum, probably Hodgkin's.

8-27-34 - X-ray taken. Marked regression of Hodgkin's under treatment.

10-29-34 - X-ray taken. Chest negative. Patient has lost weight. Abdominal masses more prominent. Ascites present. Treatment given to abdominal masses.

1-7-35 - Abdominal masses much improved since x-ray treatment. No nodes palpable in abdomen. One enlarged node, 3 x 2 cm., below angle of jaw on right side; spleen questionably palpable.

1-8-35 - Blood transfusion, 500 cc. of citrated blood.

1-12-35 - Another blood transfusion.

1-19-35 - Readmitted. Following transfusion (one week ago), she did not do well. She had marked anorexia, complained of headache, bled profusely, had some cough, was listless and lost weight. Complained of pruritis of arms and legs.

Physical Examination

Shows a well-developed, white female who is intelligent and cooperative. Skin and mucous membranes are very pale. Pigmentation over neck and chest, probably due to x-ray. Herpes present.

Neck - large gland under angle of jaw on right side, not tender; thyroid not palpable. Blood pressure 92/48. Heart - no murmurs or thrills. Abdomen - tense and distended, soreness over left upper quadrant with 2+ rigidity. Extremities - negative. Clinical impression: Hodgkin's disease. Aplastic anemia. Splenic infarcts.

Laboratory

Urine - negative. Blood - hemoglobin 14%, erythrocytes 980,000, leucocytes 4,150, neutrophiles 56%, lymphocytes 34%, cells toxic.

1-21-35 - Blood - hemoglobin 31%.

1-23-35 - Reticulocyte count 3%.

1-29-35 - Icterus index 23.2.

2-19-35 - Quantitative urobilinogen in urine - trace. Quantitative urobilinogen in feces - 34.7 mg.

Course

On admission temperature 102, pulse 120. Extremely weak. Given repeated blood transfusions. Course progressively downward. Developed signs of pericardial effusion.

2-25-35 - Expired.

Autopsy

Body is fairly well-developed, poorly nourished, white female, 17 years of age, weighing about 100 lbs. Slight rigor but no hypostasis, edema or cyanosis. Pupils equal.

The Peritoneal Cavity contains 1000 cc. of thin, greenish fluid. Appendix shows no inflammatory reaction. Pleural Cavities contain no excess fluid. Pericardial Sac contains about 500 cc. of thin greenish fluid. No adhesions. Heart weighs 250 grams. Valves smooth. Myocardium shows no fibrosis or infiltration. Root of the Aorta is smooth. Few large Lymph Nodes about hilum. Right lung weighs 200 grams. Firm, whitish nodule, 1 cm. in diameter, on pleural surface of right middle lobe. Left lung weighs 150 grams and shows no nodules. Spleen weighs 900 grams. Multiple, large infarcts, apparently of various duration.

Some are quite firm, others reddish with a whitish zone of reaction.

Liver is yellow and fatty. Numerous small and few large lymph nodes around liver hilum. Weight - 1700 grams.

Gall-bladder contains no stones, tumors or inflammatory reaction.

Gastro-Intestinal Tract - no hemorrhage, tumor or infiltration.

Pancreas - numerous hard nodules posteriorly.

Adrenals show no hemorrhage, tumor or infiltration.

Kidneys are of horseshoe type, weigh 300 grams and are separated by a fibrous band. There is a single ureter to each.

Bladder shows no hemorrhage or tumor.

Genital Organs - no tumor or infiltration.

Large periaortic nodes, each measuring about 2 cm. in diameter. Bone marrow from shaft of femur (right) is red.

Head: Meninges not infiltration. Section of brain - no evidence of hemorrhage or infiltration.

Microscopic of lymph nodes - shows obliteration of architecture, marked reticular hyperplasia, number of multinucleated cells and areas of fibrosis. Similar microscopic appearances found in nodule of lung and in liver.

Diagnosis

1. Hodgkin's disease.
2. Horseshoe kidney.
3. Multiple infarcts of spleen.
4. Pericarditis.
5. Hyperplastic bone marrow.

IV. MOVIES

Title: The Conquest of the Air

Released by: The Fox Motion Picture Corporation.