FILE NAME: Talc (TALC)

DATE: 1974

DOC#: TALC041

DOCUMENT DESCRIPTION: Autopsy Report

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chart

ROSWELL PARK MEMORIAL INSTITUTE

AUTOPSY REPORT

Name:	RALPH J. BROWN	Chart Number: 131343
Date and Time of Death:	6/29/74 @ 5:30 P.M.	Autopsy Number: 11354
Date and Time of Autopsy:	6/30/74 @ 9:30 A.M.	Prosector: Y. Satchidanand,

MICROSCOPIC DESCRIPTION

CARDIOVASCULAR SYSTEM
Section of the heart shows mild focal fibrosis.

RESPIRATORY SYSTEM
The lungs show thickening and edema of the pleura. There is infiltration by malignant lymphoma, composed of well-differentiated small lymphocytes. These cells are diffusely infiltrating the lung parenchyma. The adjacent lung shows thickening and fibrosis of the alveolar walls. The alveolar septae show large atypical cells. Several of the alveoli have asteroid bodies and ferunginous bodies. Elsewhere, the alveoli are filled with dense proteinaceous material. In addition, large areas of emphysema are noted. Considerable thickening of the smaller arterioles is seen. Large emphysematous areas are seen.
The main bronchus shows ulceration and infiltration by malignant lymphoma.

DIGESTIVE SYSTEM
Section of the esophagus shows mild dysplasia. There is submucosal edema and squamous metaplasia of the ducts. There are a few dilated vessels. These probably represent radiation changes. The stomach has a well-preserved mucosa. There is no lymphomatous infiltration. The small intestine is unremarkable.
The liver shows mild fat-metamorphosis and mild lymphocytic infiltration of the portal areas. There is moderate degree of autolysis of pancreas.

RETICULO-ENDOTHELIAL SYSTEM
The section of the spleen shows chronic passive congestion.
A single small lymph node shows infiltration by poorly differentiated lymphocytic lymphosarcoma.
The vertebral marrow shows focal hypocellularity and multifocal infiltration by malignant lymphoma. The femoral marrow is hypercellular and shows erythroid hyperplasia. Mild degree of megakaryocytic hyperplasia is seen.

ENDOCRINE SYSTEM
The pituitary gland is unremarkable. The thyroid gland is composed of small and large follicles filled with colloid. The parathyroid gland is unremarkable.
The adrenal glands have well preserved cortex and medulla.

URINARY SYSTEM
Section of the right kidney shows metastatic malignant lymphoma infiltrating the parenchyma. The glomeruli are fairly well preserved. The tubules show autolytic changes.

REPRODUCTIVE SYSTEM
The testicles have atrophic seminiferous tubules, and a few are hyalinized.
The section of the prostate gland shows extensive autolysis.

CENTRAL NERVOUS SYSTEM
Sections of the hippocampus and cerebellum are unremarkable.

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RALPH J. BROWN
6/29/74 @ 5:30 P.M.
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Chart Number: 131343
A-11354
Y. Satchidanand, M. D.

FINAL SUMMARY

At autopsy the lungs were found to be very heavy (right lung 1400 gms. and lt. lung 1100 gms). Microscopic examination revealed very interesting features. Extensive fibrosis was noted. This could be attributed to the radiation this patient received for the malignant lymphoma. However, this patient is said to have worked for many years in a talc factory. This explains the "ferunginous bodies" and the "asteroid bodies" seen in large numbers in the lungs. The "ferunginous body" also known as the asbestos body is not specific for asbestosis. It is formed by a deposition of iron salts and protein on particles of asbestos. However, similar deposition is seen in cosmetic talc, aluminum silicate and glass fibers. Animal experiments have confirmed the above finding. Therefore, the fibrosis can be attributed to both radiation and lung exposure to talc.
A fibrogenic impurity accompanying talc (hydrated magnesium silicate, is tremolite, A mineral form of asbestos. Tremolite is known to form asbestos like bodies and induce interstitial fibrosis.

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FINAL ANATOMICAL DIAGNOSIS

1. Lymphocytic lymphosarcoma involving right lung, right hilar lymph nodes, and right kidney following lymphosarcoma of left cervical lymph nodes. T08 M9623

2. Bilateral pulmonary congestion and extensive radiation fibrosis (right lung 1400 gms and left lung 1100 gms). T28 E9320

3. Bilateral pulmonary talcosis. T28 M5602

4. Focal acute bronchopneumonia. T28 M4101

5. Bilateral pleural effusion, 300 cc each side.

6. Atherosclerosis of coronary arteries and aorta, moderate.

7. Arteriolar nephrosclerosis, mild.

8. Status Post:
   a) Radiotherapy 3600 rads to left neck, 11/16/71 - 12/22/71.
   b) Chemotherapy - Vincristine and Cytoxan, April - September 1971. E8803, E8829, E8813
   c) Chemotherapy with BCNU and Prednisone, September 1972. E8536
   d) Chemotherapy with Adriamycin, March 1973. E8838
   e) Chemotherapy - Methotrexate, (July 1973) Leukovorin, Ara-C, Cytoxan, and Vincristine. E8830, E8822
   f) Radiation to whole chest (2100 rads, February 1974).

MECHANISM OF DEATH

RESPIRATORY INSUFFICIENCY DUE TO BILATERAL PULMONARY CONGESTION, EDEMA AND RADIATION FIBROSIS.

JOHN W. PICKREN, M. D.
CHIEF OF PATHOLOGY

PER: Y. Satchidanand, M. D.
J. F. Gaeta, M. D.

YS:kb
4/3/75

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BRAIN

The dura mater and the leptomeninges are smooth and unremarkable. The sagittal sinus and the cerebral arteries are patent. Serial coronal sections of the cerebrum show no evidence of softening, hemorrhage or any tumor. The ventricular system is patent and shows no dilatation. The cerebellum, pons and medulla are unremarkable. Representative sections are taken and the rest is saved.

JOHN W. PICKREN, M.D.
CHIEF OF PATHOLOGY

PER: Y. Satchidanand, M.D.

YS/ct
7/18/74