

University **Hospital**

DEPARTMENT OF PATHOLOGY

10:52

F.R. DAVEY, MD, CHAIRMAN AUTOPSY REPORT

NAME: FORSYTH, CHARLES

UH#: 000199311

AUTOPSY NO.: A97-015

PATIENT NO.: AAP-3160

ATTENDING PHYSICIAN: WIDELL, JARED M

SERVICE: ER CARDIOLOGY

PROSECTOR: CHRISTINE FULLER, M.D.

WITNESS: JOHN FALITICO

DATE & TIME OF DEATH: 04/23/97 0857 DATE & TIME OF AUTOPSY: 04/24/97 0845

DATE OF REPORT: 05/26/97

FINAL AUTOPSY DIAGNOSIS

Acute myocardial infarction.

- 2. Chronic ischemic heart disease.
- Early bronchopneumonia (left lower lobe).
- Pneumoconiosis (Asbestosis and Talcosis).
 a. Pleural plaques.
 - b. Diffuse interstitial fibrosis (Grade 2-3 for histologic grading of asbestosis).

CHRISTINE FULLER, M.D.

JERROLD L. ABRAHAM, M.D.

B14.00

EXHIBIT

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MICROSCOPIC DESCRIPTION

CARDIOVASCULAR SYSTEM:

Coronary arteries:

Extensive atherosclerosis with focal dystrophic calcification (up to 90% occlusion of LAD and 50-70% occlusion of LCA and right coronary arteries).

HEART:

Acute myocardial infarction (approximately 24 hours in age) with early myocyte coagulative necrosis (intense cytoplasmic eosinophilia and nuclear pyknosis) and sparse neutrophilic infiltration. Scattered areas of fibrosis and accompanying myocyte dropout (indicative of chronic ischemia).

Numerous hypertrophic myocytes.

RESPIRATORY SYSTEM:

Multiple pleural plaques - focally HYALINIZED and calcified collections of dense fibrous tissue with associated sparse lymphoplasmacytic infiltrates.

- LUNGS:

Diffuse interstitial fibrosis most prominant in peribronchiolar areas, with extension into respiratory bronchioles, alveolar ducts, and alveoli. Focal honeycombing is present. There is focal Type 2 pneumocyte hyperplasia, with several pneumocytes containing cytoplasmic hyalin accumulations. Many asbestos bodies are seen, particularly within the lower lobes, embedded within the fibrous septae and also free within alveolar spaces (counts on one slide were 10+). Abundant fine crystalline material which is weakly birefringent, is also present within the interstitium. Early patchy broncho-pneumonia is seen within the left lower lobe. Mild emphysematous changes are noted focally. An iron stain best delineates the abundant accumulation of ferruginous bodies. Interstitial accumulations of strongly birefringent platy crystals consistent with talc are also noted.

NOTE: the findings listed above would correlate with a Grade 2-3 for histologic grading of Asbestosis.
Sections of pulmonary artery reveal moderate atherosclerosis.

THRISTINE FULLER, M.D.

JERROLD L. ABRAHAM, M.D.

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GROSS DESCRIPTION:

The autopsy is performed approximately 24 hours after death. Permission is by the wife of the deceased. Authorization states heart and lungs only.

EXTERNAL APPEARANCE:

The subject is a 72 year old male. The body is well developed, well nourished and appears consistent with the stated age. The weight is 75 kilograms. The height is 5' 10". There is moderate rigor mortis, dependent lividity, and algor mortis. The skin is clear. There is a blue and black tattoo on the left forearm. The head is not deformed and there are no scars. The hair is sparse and gray and brown. The sclerae, cornea and lenses are clear. The nose and external ears are unremarkable and their passages are clear. The lips and gums show no lesions and the patient is edentulous. The neck structures are symmetrical, and there are no unusual masses. There is a puncture mark in the right supraclavicular area indicative of previous catheter placement. The thorax has the normal contour and symmetry, and the male breasts and nipples are unremarkable. There is a 19.0 cm curvilinear well-healed thin scar in the left thorax. The abdomen is slightly protuberant. There are no abnormal masses or fluid wave externally palpable. There are two 1.0 cm and 11.3 cm healed scars slightly left of the midline in the mid epigastric region, as well a 21.0 cm scar that extends from zyphoid process to the pubic ramus. The testes are descended and there are no abnormal masses. No inguinal masses are palpable. There is an approximately 1.0 cm dark brown rough raised lesion in the left lower quadrant. Ecchymoses are present in both antecubital fossa as well as on the dorsum of the right hand. There is also a small puncture mark in the right inguinal area consistent with a prior catheter placement. Extremities otherwise show no scars or deformities and there is minimal edema and moderate cyanosis in the lower extremities.

INTERNAL EXAMINATION:

The standard thoracic incisions are employed. The panniculus adiposus measures 1.5 cm in thickness at the thorax. The skeletal muscles are red-brown, normally firm and of normal bulk. The rib cage is intact. There is no subcutaneous emphysema or sign of pneumothorax. The left pleural cavity contains approximately 25 cc of cloudy yellow fluid. The right pleural cavity contains approximately 75 cc of cloudy yellow fluid. The pericardial cavity contains 25 cc of clear yellow fluid. The serosal surfaces are focally dull and gray with extensive adhesions present on both pericardial and pleural surfaces bilaterally.

CARDIOVASCULAR SYSTEM:

The heart weighs 650 grams. The ventricular wall thickness are right 0.4 cm., left 1.3 cm. The muscular wall is minimally hypertrophic. The cardiac chambers are dilated, particularly the left ventricle. The auricles and appendages are unremarkable. The valve ring circumferences are: tricuspid and mitral approximately 12.0 cm and aortic and pulmonic 9.0 cm. The valve leaflets and chordae tendineae are overall delicate, pliable and free of lesion. There is a moderate amount of calcification of the aortic valve leaflets. The commissures are minimally fused. The epicardium and subepicardium are unremarkable. The coronary arteries arise in normal position. The vessel walls are thickened by focally eccentric calcified yellow plaques. The lumina are focally markedly compromised. (Approximately 90% occlusion of LAD and 50-60% stenosis of LCA and right coronary arteries). The myocardium is softened and shows red-brown mottling throughout the vast majority of the left ventricle including the anterior, lateral, posterior, and inferior walls. The endocardium is smooth, transparent and free of mural thrombi. The aortic and pulmonary arteries arise in normal anatomic relation. The ductus arteriosus is obliterated. The foramen ovale is closed. The aortic wall shows mild focal atheromatous plaquing with minimal laminar calcification. There is moderate loss of elasticity. The major branches of aorta are patent and show mild atherosclerosis.

RESPIRATORY SYSTEM:

The lung weights are: right 950 grams and left 650 grams. The lungs have the usual shape and lobar divisions. The pleura is focally roughened, particularly along the lateral edges and diaphragmatic surface with achesion to the numerous calcified pleural plaques present on the diaphragmatic posterior and inferior walls, and pericardium. There is moderate dark pigmentation. The bronchial tract is intact and free of mass, dilatation or mucosal change. The bronchial lumina contain small amounts of frothy mucoid material. The pulmonary arteries are opened in situ and found free of major thrombi. No emboli are present in the peripheral branches. There is moderate atheromatous plaquing of pulmonary arteries. The pulmonary parenchyma is firm and consolidated throughout all lobes. There is a small focus of prominant induration in the left lower lobe which exudes somewhat purulent appearing fluid with pressure. The hilar lymph nodes are anthracotic and are free of nodular lesions.

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CLINICAL SUMMARY:

The parient is a 72 year old male with a past medical history significant for a myocardial infarction at the age of 40, congestive heart failure, diabetes, hypertension, asthma, and severe lung disease with occupational exposure to talc, (31 years), as well as a 40 plus pack year smoking history. On 4/22/97 at approximately 3:00 pm he complained of dizziness and experience of dyspnea. For several weeks prior to this event he had been experiencing severe exertional dyspnea and orthopnea. He was found unresponsive and cyanotic by his son-in-law who initiated basic life support and called for paramedic assistance. When the ambulance arrived, the patient was found with agonal respirations and responsive only to noxious stimuli. He was diaphoretic and a heart monitor revealed wide ventricular tachycardia. A finger stick showed a glucose level of 292. He was brought to University Hospital emergency room where an ECG revealed wide complex tachycardia, right bundle branch block, and intermittent ventricular tachycardia. Examination revealed increased JVP, and bilateral pupils fixed and dilated. Antiarrhythmia drugs, including lidocaine, bretyllium, procainamide and magnesium (as well as IV dopamine) were begun. Echocardiogram showed severe left ventricular dysfunction, low ejection fraction (15%), and mitral and tricuspid regurgitation. Lab results included CK = 1099, CKMB = 17.5, CKMM = 4.6. He continued to be hemodynamically unstable with blood pressures falling to 40/32 and heart rate in the low 30's. Additional lab results on the morning of 4/23/97 showed troponin = 8.2 and CKMB = 28.5, and lactic acid = 12. The patient continued to deteriorate, and became unresponsive at 8:55 am on 4/23/97. DNR orders were in place, therefore no further resuscitation efforts were initiated. He was pronounced dead at B:57 am by Dr. Nair.