



**Pathology Laboratory
CryoLife, Inc.
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Kennesaw, GA 30144
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Cardiac Pathology Report

Specimen Number	H06-XXXX	Donor Name	Doc, John
ME Case Number	N/A	Date Reported	9/29/2006
Donor Number	XXXXX	OTPO Name	XYZ OTPO
Date Received	9/16/2006	OTPO City	Anywhere
OTPO Xref	XY2893493	OTPO State	USA
OTPO Number	XXXX		

**** Final Diagnosis ****

Residual heart tissue (276 grams) showing extensive circumferential acute subendocardial necrosis involving the left ventricle and interventricular septum. No coronary abnormalities or congenital cardiac malformations noted.

Unremarkable aortic valve.

Comment: The gross and microscopic findings are consistent with severe global hypoxic injury.

Clinical History

Age	13	Height	65 in
Sex	Male	Weight	140 lb

Medical History Provided by OTPO Witnessed collapse while in a pool. No respirations when pulled out of pool. EMS called and admitted to ER on 09/03/2006. Intubated and progressed to brain death on 09/15/2006. Cause of death is pending autopsy; possible anoxia secondary to drowning.

Procurement Notes

Reported Recovery Notes	N/A
Pulmonary Embolism?	No

Dissection Notes

Undissected Gross Description Heart appeared grossly normal with apex opened.

Description	Size	Dissection Notes
Aortic Valve & Conduit	18.0 mm x 4.2 cm	Fenestrations: >9.0 mm on RSCASC.
Pulmonary Valve & Conduit	22.0 mm x 3.4 cm	Fibrous thickening LSC annulus. Fibrous thickening RSCASC.

Gross Description

General

Specimen Received Dissected residual heart; Aortic Valve and Conduit
Pre-dissection Weight 337 grams
 Normal range* 178 - 380 grams
Post-dissection Weight 276 grams

*Normal heart weight ranges represent the lower and upper 95% confidence limits respectively for the predicted normal heart weight as a function of gender, age and body weight. Data from Silver MM, and Silver MD: Examination of the Heart and of Cardiovascular Specimens in Surgical Pathology, p. 8-9. In Silver MD, Gotlieb AI, Schoen FJ, eds: Cardiovascular Pathology. 3rd Ed. Philadelphia, Churchill Livingstone, 2001.

Epicardium

Epicardium Normal

Myocardium

Myocardium Abnormal

An essentially circumferential subendocardial hemorrhage is seen extending to varying depths involving the entire left ventricle and interventricular septum (see image).

Average Myocardial Thickness

LV	1.2	cm
IVS	1.3	cm
RV	0.3	cm

Ventricular Dilatation Not Present

Endocardium

Endocardium Abnormal

Mural Thrombosis Absent

Surface hemorrhage is seen involving the interventricular septum and both anterior and posterior papillary muscles of the left ventricle.

Atria

Atria Normal - symmetrical

Coronary Arteries

Circulatory Configuration Right Dominant

Proximal Coronary Artery Anatomy Normal

Maximum % Occlusion

Left Main	0	%
Left Anterior Descending	0	%
Left Circumflex	0	%
Right Coronary	0	%

Coronary Thrombosis Not Seen

Valves

Mitral Normal

Tricuspid Normal

Pulmonary See Dissection Notes

Aortic See Dissection Notes

Sample Report

Histologic Sections

- A Left Ventricle
- B Interventricular Septum
- C Right Ventricle and Right Coronary Artery
- D Atria - Sinoatrial Node - and Left Anterior Descending Coronary Artery
- E Aortic Valve

Microscopic Description

Sections of the left ventricle and interventricular septum show extensive subendocardial coagulative necrosis of the myocardium in a circumferential distribution characterized by increased cytoplasmic eosinophilia, loss of nuclei, loss of cytoplasmic detail, acute interstitial hemorrhage, and an early interstitial neutrophilic infiltrate (see image). There are areas of edema at the periphery of the subendocardial necrosis. Vascular congestion is noted. The right ventricle shows essentially normal endocardium, myocardium, and epicardium. Section of the right atria taken from the area of the SA node is unremarkable. The coronary arteries are unremarkable. Section of the aortic valve is unremarkable. In addition, the AV node is identified and shows no significant abnormalities.

Images

Circumferential hemorrhage



Acute subendocardial necrosis, left ventricle



Pathology Examination Performed By:
Wayne W. Daniels, D.O.
Pathologist

*** End of Report ***