



Pathology Biology Section – 2003

G72 The Normal Heart Weight: Diagnostic Criteria for Cardiomyopathies

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The definition of normal heart weight is discussed. Various features and causes of cardiac hypertrophy are examined and illustrated. Criteria for the diagnosis of cardiomyopathy are discussed.

In medicolegal practice it is not uncommon that the cause of a death cannot be determined by autopsy, histology, and toxicology. Among other questions, the following deserve special attention: Was the heart weight normal? Can an isolated cardiac hypertrophy be a cause of death? What can be expected from cardiac histology?

In the first part of this presentation, the definition of the normal heart weight is discussed on the basis of a personal series of normal hearts and the literature. For this purpose, the weights of 973 hearts from adults with normal hearts who died of violent death were measured in order to determine the upper limit of the normal heart weight as a function of sex, age, body weight, body height, and body area. In the second part, gross and histologic findings in 38 hypertrophic hearts were examined. The meaning of myocyte disarray is discussed. Diagnostic criteria for the diagnosis of primitive hypertrophic cardiomyopathy are examined. Contribution of cardiac histology to the assessment of the diagnosis of cardiomyopathy is also analyzed.

Heart, Hypertrophy, Cardiomyopathy