

Guidelines on Autopsy Practice

Mary N Sheppard and S Kim Suvarna

Sudden death with likely cardiac pathology

Getting it right in practice

Getting it right for the exam

Guidelines on Autopsy Practice

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Sudden death with likely cardiac pathology

Prompted by some previous poor performance
Medico-legal issues

The realities of inherited cardiac disease

Target – established consultants and trainees

Is the heart disease heart related, if so how?

Is it related to systemic disease?

Is it inherited?

Could it have been treated?

Is it related to illegal/illicit activity?

Look-alikes

Pulmonary embolism

Pneumonia

Pancreatitis

Peptic ulceration and peritoneal inflammation

Abdominal aortic aneurysm (dissection/rupture)

SUDEP

SUDAM

Illicit drugs

Causes of sudden cardiac death

coronary artery disease/ischaemic heart disease

atheroma, coronary anomaly, Kawasaki disease, vasculitis, bridging, dissection, arteritis, embolism, fibromuscular dysplasia, spasm

Valvular disease

aortic stenosis (2/3)
mitral valve prolapse
rheumatic valve disease
infective endocarditis

Myocardial disease

myocarditis, cardiomyopathies, left ventricle
hypertrophy/hypertension, obesity, idiopathic myocardial
fibrosis, amyloid, storage disorders, connective tissue
disorders, sickle cell, hypothyroidism/hyperthyroidism

Congenital heart disease (GUCH)

etc

Cardiac tumour

Conduction abnormality

Drug toxicity

Others

Channelopathies

Metabolic disease

Pregnancy

SADS

Cardiomyopathy

Trauma

Requirements

appropriate facilities in terms of the autopsy room
data (circumstances, previous medical history, drug history,
nature of surgical operation/interventions, alcohol/drug
usage, family history, ECG, lipid profiles, biochemistry).

A (good) standard autopsy!

Body mass, height

Examination of cranial, lung, liver, kidney and other tissues is
relevant to consider a balanced cased analysis.

Photography is very useful ... bring your own !

Standard examination of the heart

External, appendages, coronary arteries, great vessels, chambers

Coronary artery section

Transverse section across ventricles

Consider grafts..... Stents

Consider devices

Follow the AECVP guidelines

Histology to fit the needs of the case

>>>> ?? No histology needed in cases of

- frank coronary thrombosis
- myocardial infarction
- tamponade

Contrast with those with minimal changes requiring multiple blocks

Samples of the coronary arteries – how many?

Atrial histology – ??

Ventricular histology – where?

Special tests

EVG, amyloid stain, mucin stain, lymphoid immunohistochemistry – as reflects initial history

Other samples

Fluid samples for toxicology

Serum for anaphylaxis?

Viral studies ? 1 cm cube of heart tissue

Fresh spleen for possible inherited disorders of the heart

Frozen myocardium for enzyme tests – will probably reflect ante-mortem data

Organ retention and transfer ??

Organ retention and photography and dedicated sampling

Cardiac pathology

... more than just one person or centre

The end

..... any questions ?