

UK CARDIAC PATHOLOGY NETWORK

Protocol for pathologists in non-ischaemic Sudden Cardiac Death

Clinical and family history: with help of Coroner's Officer

Before the autopsy: Consider discussions with/referral to cardiac pathologist.

Digital photography of specimen: as appropriate, ensuring anonymisation

Fresh tissue:

1. Spleen and myocardium to local lab or Regional Genetics Unit (extraction of DNA/long-term storage at -20°C) pending clinical decision for genetic screening (may take months or years) **NB** remember to obtain families' consent
2. Blood for toxicology +/- mast cell tryptase [Useful website for cardiac risk and therapeutic drugs: <http://www.qtdrugs.org>]

Method of dissection: Basso et al. Guidelines for investigation of sudden cardiac death. Virchows Archives 2008;452(1):11-18.

Minimum blocks

- | | | |
|---|---|---|
| <ol style="list-style-type: none">1. Anterior LV + LADCA2. Anterolateral LV3. Lateral LV + CF/marginal CA4. Inferolateral LV5. Inferior LV + PDCA6. Septum7. Lat + post RV (TS) + marginal CA8. RVOT (LS)9. Any other focal lesions | } | targeted as appropriate from mid-ventricular short-axis slice |
|---|---|---|

Additional blocks in morphologically normal hearts

10. RA + LA
11. Aorta + AV
12. MV (LS)
- 13-20 max. Conducting system

Stains: Haematoxylin-eosin / Connective tissue stain (EVG/MT/PSR) / Other stains as indicated.

***Consent for long term storage of histopathological and fresh material** should be sought from the family (including consent for ethically-approved research).

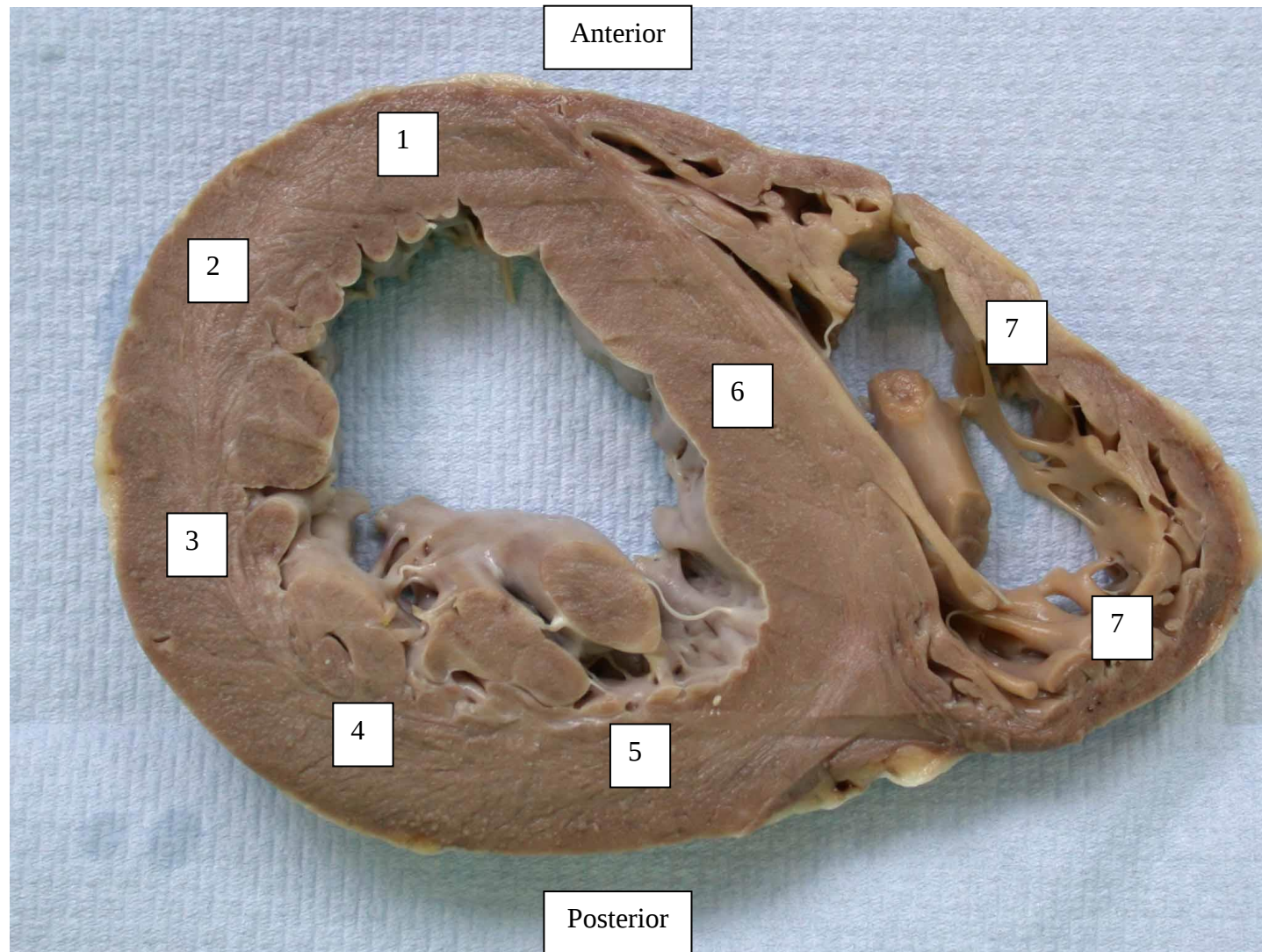
Report: Recommend referral of family for cardiological screening which may require pathological review and genetic testing, with access to stored tissue blocks and frozen tissue from the autopsy. Also consider giving information about family support groups:

- Cardiomyopathy Association: <http://www.cardiomyopathy.org>
- SADS-UK [Ashley Jolly Trust]: <http://www.sadsuk.org>
- Cardiac Risk in the Young: <http://www.c-r-y.org.uk>

Recommended mapped blocks from mid-ventricular slice

8 – RVOT (LS)
9 – any focal lesion
10 – RA and LA
11 – Aorta and AV
12 – MV (LS)
13 – 20: CS (from
right to left)

Left



Anterior

Right

Posterior