

# Cardiac pathology – a dying trade?

It seems ironic that, at a time of ultra-specialisation, when the public is demanding higher standards from doctors, academic medicine is being downgraded. Cardiac pathology represents a perfect case in point. At present there are only a handful of cardiac pathologists in the United Kingdom and we have recently had the tragic death of the man who acted as my mentor, Professor Michael Davies, the only professorial cardiac pathology chair sponsored by the British Heart Foundation. It is essential to nurture expertise in cardiovascular pathology. Without this specialist knowledge, how are we to understand the mechanisms of atherosclerosis, hypertension, cardiomyopathies and the increasingly common syndrome of heart failure.

Public disenchantment with the autopsy is threatening to wipe out the entire specialty of cardiac pathology. Following on from the Bristol and Alder Hay enquiries, the pathologist is viewed more as pariah than physician. Pathologists have relied on the study of the whole heart removed at autopsy for many of the advances in cardiomyopathies and atherosclerosis. Surgeons have learned about congenital heart disease from examination of the whole heart. One need only read the marvellous account of how Lillehei prepared for the first successful open heart surgery for ventricular septal defect by studying the cardiac pathology collection at the Mayo Clinic in 1954, to understand the need to study the whole organ. Most of us tend to forget that many of the major advances in heart surgery in both children and adults, only came about from what was learned at post-mortem.

A further irony is that heart disease continues to be the number one killer in developed countries. There are few things in life more traumatic than the sudden death of a family member. The need to investigate and understand the cause of death, particularly when it occurs under unusual, confusing, or ambiguous circumstances is almost universal. The use of autopsy, however, has declined steeply over the past 50 years. Currently, autopsies are performed in only about 6% of non-forensic hospital deaths, and even less among deaths in the USA. It has been repeatedly shown, however, that discrepancies between clinical diagnosis in the living and true cause of death at post-mortem exist in as many as 30% of cases. As a definitive method of establishing the cause of death, therefore, the autopsy remains unique and invaluable.

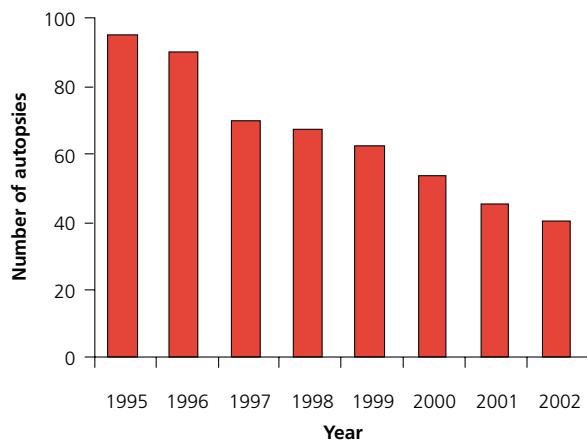


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Recently, a study sponsored by the British Heart Foundation reported on sudden cardiac death in England.<sup>1</sup> In this study, the estimated annual frequency of sudden unexpected death due to cardiac or unidentified causes in English adults of employment age, was 11/100,000 (3,481 annual deaths). In 4.1% of sudden unexpected deaths under 65 years, no cause was found. Until it becomes accepted practice to identify these cases by a name, such as Sudden Adult Death Syndrome (SADS), it will not be possible to study their aetiology systematically and we need a full autopsy to identify them correctly. I have a special interest in this area and have in the recent past received hearts from all over the country for an 'expert opinion'. Now, however, coroners and pathologists are running scared and burying the evidence, literally, with the body. They are unwilling to send us whole hearts and often have only limited tissue samples for analysis. This has resulted in unsatisfactory results for both coroners and families. Even in our own specialist cardiac centre at The Royal Brompton Hospital, our autopsy rate has fallen (figure 1). We no longer have access to material for research and genetic analysis and yet genetic investigations are becoming an essential part of cardiac pathology.

"It can't be much fun working in the pathology service in the United Kingdom as it lurches from one crisis to another with regular knocks from the government and the media.

**Figure 1.** Total number of autopsies performed at the Royal Brompton Hospital, 1995–2002



There have been mistakes, notably the practice of retaining organs without consent, and it will be some time before the public is reassured," said a recent *BMJ* editorial so succinctly.<sup>2</sup> This article reflects the public disenchantment, which could

result in the extinction of cardiac pathology. We need to promote among our colleagues and the public the core value of the autopsy. Cardiac pathologists remain popular with clinical colleagues and are seen as a rich source of both teaching and teaching slides, but where is the support when it comes to funding? Our extinction will be to the detriment of cardiology and cardiac surgery in general. We are aware that our trade is no fairy tale but, as the Latin motto over many autopsy suites states: "locus est ubi mors gaudet succurrere vitae" (this is the place where death delights to help the living), we are here to benefit the patient and their families in life and not to abandon them in death.

#### References

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2. Abbasi K. Death underfunded. *BMJ* 2001;**322**:186.

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