



Overview of Coroner's Adult Autopsies in England

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Abstract

This article provides an overview of coroner's autopsies in England with the aim of improving the service and hence provide accurate death certification as well as a learning experience for clinicians caring for patients. The system that has evolved has neither improved the service nor has it led to a learning experience for the clinicians. Compatibility of clinical features ante-mortem combined with post-mortem findings are lacking and involvement of the clinicians is almost non-existent. The coroner's pathologists invariably works in isolation and the clinicians do not get any opportunity to discuss some of the difficult issues faced during the clinical presentation of patients. Credibility of pathologist reports is further compromised by non-availability of histology, microbiology and toxicology findings in crucial cases. The whole system of coroner's pathology needs to be overhauled and these critical limitations need to be addressed.

Keywords

Coroner's autopsies, Histology, Microbiology, Toxicology

Introduction

The coroner is an officer of the Crown in England and Wales and the establishment of the office dates back many centuries. Each coroner has a specific area or district of jurisdiction where their duty is to establish the cause of death of people in that population and provide recommendations, in addition to the verdict, as to improvement of safety. The equivalent office is that of the medical examiner in North America or the Procurator Fiscal in Scotland. A legal qualification by which a coroner is appointed is mandatory nowadays.

The coroner's service has, in modern times, provided a useful check for clinicians in the ascertainment of the clinical issues that led to death of a patient. The death could be attributable to a violent death, death due to natural causes that could not be established ante-mortem, poisoning, death in custody that involve issues of care by the state, or due to neglect in the community. In order to make the service effective the coroner's office has the power to investigate an unexpected or unexplained death, order a burial or cremation, issue a death certificate, order a post-mortem examination of the deceased as well as, when required, hold an inquest.

One of the important aspects of the coroner's service, in the context of clinicians, is to order an autopsy. In previous decades it was common practice for the hospital service, where a death occurred, for

the clinicians in consultation with the immediate relatives to organise a hospital post-mortem examination to clarify issues pertaining to the death and other clinical issues surrounding the case, thereby providing a useful forum for postgraduate education to clinical trainees as well as senior clinicians. However, during this period the consent to hospital post-mortem examinations has not been forthcoming with consequent reduction in scope of postgraduate education.

Coroner's Adult Post-mortems

The coroner's post-mortem examinations currently are the only extensively viable mechanism for the clinicians to learn from the clinical issues that led to a death of a patient and such cases when unexplained are referred to the coroner who would invariably request a post-mortem examination. It has been known from studies that differences between clinical diagnoses and findings at post-mortem examinations vary considerably of up to 25% and some of these differences are serious enough to affect clinical care [1-3]. Histological findings of the organs found macroscopically abnormal during the post-mortem examination are crucial to make an accurate determination in 24% of cases [4] and such information may prove essential in the clinical care of patients [5,6].

The Royal College of Pathologists published their comprehensive report in 2002 [7] outlining the best practice in undertaking autopsies and particular reference was made in regards to coroner's autopsies. The report highlights the gap that coroner's autopsies produce in matching the clinical features of the patients ante-mortem that led to death and those found at post-mortem, as well as addressing other essential clinical features with histological findings. In other words, the coroner's autopsies tend to be cursory and have not been a useful learning exercise for the clinicians. One of the important recommendations of the report is to advocate for coroner's autopsies to be done within the hospital for in-patient deaths providing an opportunity for clinicians and pathologists to discuss issues presented. In the present situation such interaction does not occur in significant numbers of cases as such autopsies are carried out away from the hospital sites.

The Royal College of Pathologist report [7] discusses the issue of minimally invasive autopsies to replace traditional post-mortems such as magnetic resonance imaging (MRI), percutaneous needle biopsies of specific organs, and laparoscopic examination post-mortem with tissue sampling, but these issues are beyond the scope of this article.

The inadequacy of coroner's autopsies is highlighted further by a quality assurance study undertaken recently in a hospital in United Kingdom where not a single histological specimen was taken during the autopsies [8] despite the need for such an investigation. The reason for reluctance of the coroner's pathologist to take tissue is due to the fact that in the 1990s there was a public outcry in England when large scale tissues from dead bodies were retained without the knowledge of the immediate relatives.

The National Confidential Enquiry into Patient Outcome and Death (NCEPOD) [9] report was critical of the coroner's post-mortem examinations due to lack of adequate histological specimens taken during the autopsy. Pathologists appear reluctant to take tissue samples as the coroner would need to be approached for permission. The Coroners (Investigations) Regulations 2013 [10] specifically states the need to approach the coroner in writing in the event tissue samples are required for further investigations of the death and the period of time the samples are to be retained. The coroner in turn has an obligation to approach the next of kin to inform of this requirement and set a plan of action for disposal of tissue material by burial, cremation, or medical research. In addition, the copy of the report of autopsy may not be provided to any other person (one assumes the clinician as well) without the written authorisation of the coroner. With such a complicated procedure it is not surprising that most pathologists do not proceed with tissue biopsies for histological examinations. This is borne out by the study recently undertaken in a UK hospital [8].

The Royal College of Pathologists has recently issued a directive for its members [11,12] recommending that should pathologists not be able to undertake their duties adequately without appropriate histological specimens then they can either decline to perform the autopsy or indicate the limitations of the performed autopsy.

Conclusion

The inadequacy of coroner's autopsies need to be addressed by incorporating a flexible legislation which would allow communication between clinicians and the pathologists in a hospital mortuary setting, where the inpatient deaths have occurred. The presence of

clinicians during the post-mortem examination is critical in the learning process especially for the undergraduate and postgraduate students. The issue of histological, microbiological, and if necessary, toxicological specimens, needs to be addressed by the coroner's office as a matter of urgency as they add considerably to the accuracy of the cause of death.

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