

Aircraft Fatality Investigation as a Function of a Comprehensive Health Service

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Historical Background of Public Health Involvement

The teaching and practice of forensic pathology and public health on an integrated basis or as one in which these disciplines are closely associated dates back to the turn of the century, as exemplified by the publication in 1902 of John Glaister's *Textbook of Medical Jurisprudence, Toxicology and Public Health*. In the metamorphosis of medical training and medical practice, however, current circumstances were exploited by well-meaning idealists to bring about changes, but often with lack of foresight. The proverbial 'wind of change' is now starting to blow and once again the 'holistic' approach to medicine is gradually emerging.

In contrast with trends in the academic sphere, the Department of Health has practised this ideal since the passing of the Public Health Act, 1919, or even before. This practice is greatly facilitated by a medicolegal system which lends itself ideally to the practice of forensic medicine and forensic pathology beyond the requirements of the country's judicature.

Statutory Obligations regarding the Investigation of Fatalities

Aircraft fatality investigations are governed, as is the case with all non-natural deaths, by the provisions of the Inquest Act, 1959 (Act 58 of 1959), administered by the Department of Justice. Rules regarding the reporting of aircraft accidents in general and matters incidental thereto are prescribed by the provisions of the Aviation Act, 1962 (Act 74 of 1962), promulgated by the Department of Transport. The Department of Police provides mortuary facilities.

The function of the State Health Department is defined in broad terms of the Public Health Act, 1919 (Act 36 of 1919) and is now more clearly spelt out in the Draft Health Bill (*Government Gazette*, 14 July 1976). In the State Health Department the Health Laboratory Services are responsible for, *inter alia*, the development and running of comprehensive pathology laboratory and chemico-physical services respectively, and at the same time are charged with the rendering of medicolegal services. The laboratory facilities are readily available at all times to the forensic pathologist responsible for the medical aspects of aircraft fatality investigation, and are free of restrictions, as the service is rendered by the department of which he is a member.

Identification of the Problem

The medical investigator of aircraft fatalities is faced with intriguing problems and must be in the position

to identify pre-existing, predisposing, precipitating, contributing and obscure factors, many of which are subject to continuous evaluation, as for example coronary artery disease, while others have received little or no mention in recent literature, as *inter alia* passenger deaths occurring during flight¹ and deaths due to causes other than pure accident. A facet not sufficiently stressed and appreciated in the investigation of non-natural deaths is the identification of a possible murder or suicide. A brief reference to the latter was recently made,² whereas a 'murder in the air' other than sabotage has as yet not been proved but remains a distinct possibility.

The Interim Solution

Some 4-5 years ago a consultative medicolegal service was created by the State Health Department 'for all medicolegal cases requiring expert attention as well as for all fatal aircraft accidents'. This service was designed to ensure optimal use of existing expertise and effective communication by regionalization. For this purpose the Republic of South Africa, which covers approximately 1,22 million km², is divided into 5 geographical areas. The consultants are forensic pathologists — usually the professors of forensic medicine in the area. They are appointed by virtue of their experience in the investigation of unexpected death and the broad spectrum of non-natural deaths, and by virtue of their experience in court at murder and culpable homicide trials and at inquest proceedings, where cases of fatal accidents and suicides are generally presented. They are therefore in the best position to sense any abnormal circumstances or conditions which may lead to the correct identification of cases in which the obvious and expected did not happen.

The Future

To meet the increasing challenges of the expanding horizons of the future, development must be aimed at the effective co-ordination, on a national plane, of the full spectrum of services, the training of professional technical personnel, and of research in relation to needs and resources and must continue to be based on the principle of a service as a function of a comprehensive health service.

REFERENCES

1. Leading Article (1976): *Brit. med. J.*, **1**, 295.
2. Leading Article (1976): *Ibid.*, **1**, 168.