Letter from . . . Chicago

Swallowing the golden ball

GEORGE DUNEA

On the subject of declining necropsy rates, I was recently told about a country in Europe where as late as 1947 nobody ever died from coronary heart disease because the doctors certified all sudden deaths as "acute indigestion." Everyone knows what three decades of scientific and nutritional progress have done to the relative incidence of coronary heart disease and acute indigestion. But when Lundberg and Voigt recently reviewed the causes of sudden death in a large Swedish hospital they found that the label "coronary heart disease," though closer to the mark than "acute indigestion," was no better than the traditional laboratory "sink test." With more than half of patients dying from a wide range of non-coronary diseases, they concluded that only a necropsy can determine why people die, but that this was often not performed because of "ignorance, law, politics, and alleged lack of funds and personnel."[1]

Yet should the delicate thread of human life suddenly break, the doctor denied a necropsy will none the less be expected to put down authoritatively the immediate, intermediate, underlying, and contributory causes of death in the spaces provided for that purpose.[2] Any admission of doubt could result in a look of such disbelief or contempt from the mortician or clerks that few doctors will want to repeat the experiment often. Easier to put down "coronary arteriosclerosis," or "acute indigestion" if you will, and get on with it. But pity the poor epidemiologist who must earn his living or make his name by analysing the mortality statistics from Black Creek County from 1972 to 1980. His statistics may be flawless, but his database is not worth the computer paper it is printed on. Even using a multiple cause approach supported by an army of nosological clerks[2] will not save him. For in this setting the practising doctor is no more dependable than the village statistician referred to by Sir Josiah Stamp (from the inland revenue department, 1896-1919): "The government are very keen on amassing statistics. They collect them, add them, raise them to the n^{th} power, take the cube root, and prepare wonderful diagrams. But you must never forget that every one of these figures comes in the first instance from the village watchman, who puts down what he damn pleases."

Vital form of quality control

The immediate reaction to this administrative dilemma is to blame the village watchman. In Chicago a declining rate of necropsy from 50% to 20% prompted the *Chicago Tribune* (2 May 1982) to flaunt headlines such as "With autopsy decline, doctors' errors going unnoticed," and to quote the medical examiner as saying that doctors now find it easier to bury their mistakes. This problem is being swept under the rugs, he went on, because physicians are scared of what the necropsy may disclose. Other pathologists likewise thought that the necropsy had fallen on hard times and that ultimately this would affect patient care. "It is a serious situation; it is terrible; it means the end of medicine," said one pathologist, further emphasising that the necropsy is a vital form of quality control, that its abandonment is a backward step, that the dark ages were ushered in by a deep anaesthesia in curiosity about the human body, that the enlightenment began with Leonardo da Vinci and Andreas Vesalius, and that a renaissance in pathological anatomy may spark a renaissance in clinical medicine itself.[3]

And so, periodically, indignant sounds come from the necropsy room as the pathologist, officiating in his long green coat over the latest sacrifice, raises his bloody hands to heaven, bidding us to renounce our apostasy and return to the amphitheatre. He warns that darkness is about to descend on medicine, and, unrolling a catalogue of new diseases longer than that listing Don Giovanni's amorous escapades in France and particularly in Spain (1003), he reads out the names of those that would never have been recognised without necropsy.[4] At last, his voice rising to a pitch, he reminds us that the dead teach the living, and that without the complete necropsy we would have overlooked even the small adrenal tumours causing hypertension and the small nodules gathering on the valves in marantic endocarditis.[5]

So we stand shamed as the pathologist reads out the terrible figures. Like gold in a period of disinflation, the national necropsy rate is dropping lower and lower. Twenty years ago some 40-60% of all deaths in the United States were followed by necropsy; by 1975 the rate had declined to 22%; and presently it ranges from 10% to 20%.[4] Already by 1971 the Joint Commission on Accreditation of Hospitals had bowed to the inevitable and stopped insisting that hospitals maintain a fixed autopsy rate of 25%. In 1979 a report of 80 hospitals indicated that the combined rate in Chicago had declined from 50% in 1966 to 32% in 1975, reaching an all time low of 13% in 1978, and leading to the comment: "If the quality of medical care is reflected in the autopsy rate, these statistics are ominous."[6]

For how are we to know, one might well ask, what Mr Doe with his failing liver and failed kidneys and never abating fever really died of? How are we to learn that small tumours hidden in the pancreas can cause so much trouble? How are the bereaved relatives to know that poor Mr Doe did not die from a contagious or hereditary illness? How can we be sure that Mr Doe was not slowly done in by his greedy nephews? How are all the future young Does entering medical school to learn about pathology and anatomy and nosology if we believe that Mr Doe has suffered enough and should not be cut again. Yet increasingly, it would seem, the spiritual heirs of Vesalius have thrown in the sponge, and the autopsy halls stand empty.

Looking further for the causes of this decline, which may reside in part in the quickening pace of modern life, we find fewer doctors inclined to spend long hours on the high benches of a Vesalian ampitheatre while a new Morgagni demonstrates his favourite neck to pubis incision and the technician noisily saws off the top of the skull. Roberts,[7] who, among others, has analysed this problem, thinks that doctors are worried about being sued, disinterested because they usually receive no new information or because the pathologist may lack enough depth in a given subspecialty to really help, or irritated because the necropsy

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reports are usually typed so late that by the time they get out in the mail most people will have forgotten there ever was a Mr Doe, let alone worry about what he died from. The doctor may also not want to upset the relatives, or he may be just as happy to forget his latest defeat at the hands of the angel of death. There is also the problem that in a capitalist society nobody seems inclined to pay the $1000 required for this particular operation; that the undertaker wants to get on with the funeral and sees necropsies as making embalming difficult; that the accreditation bodies have lost interest; that the medical examiner basically does not care if you put down "coronary heart disease" as long as there is no foul play; that the relatives are too bewildered or intimidated by the funeral directors; and that even some pathologists think the necropsy is a thankless task, unrewarding and uninformative. The academic pathologist is better off studying mitochondria than cutting up whole bodies and is unlikely to acquire fame, tenure, or a future chair by adhering to the primitive techniques of Virchow and Rokitansky. In private practice the pathologist will likewise find it more profitable to undertake blood counts and frozen sections or chemical pathology. Furthermore, despite professions that a complete necropsy is as necessary as a complete physical examination, there has also been a feeling that the insistence on an invariably complete necropsy has had a deterring effect.

Reviving the necropsy

One of the most compelling arguments in favour of the complete necropsy has been that doctors overlook many diagnoses during life and indeed *do* bury their mistakes. During the past 60 years many studies have shown discrepancies ranging from 6% to 68% between clinical diagnoses and necropsy findings.[8] "Clinicians nabbed by autopsy: 46% missed diagnosis rate" reported the *Medical Tribune* in 1979 (7 March), claiming that doctors missed 75% of pulmonary emboli, also myocardial infarctions (37%), gastrointestinal bleeds (37%), acute peritonitis (50%) acute pancreatitis (80%), cirrhosis (36%), and metastatic carcinoma (12%) and concluding that clinicians missed "significant" findings in almost half of the cases, including 4% of major iatrogenic illnesses. Although other studies have also found discrepancies of 20-40% between clinical diagnoses and necropsy findings, a critical analysis (supported by a recent report from the United Kingdom) suggests that these were clinically significant in less than 15% and therapeutically important in less than 5%. In a New Jersey teaching hospital Burrows (1975) likewise found major discrepancies in nearly 11·9% but thought that less than 3% were of practical importance.[9] This prompted him to revive an earlier suggestion that the value of the routine necropsy may have decreased and that greater emphasis might be placed on the examination of selected cases. This approach, first suggested by J B Hazard of the Cleveland Clinic some 20 years ago, was also partially supported by Roberts, who hinted that routine histological slides were not needed in every case, especially if the patient had died from heart failure and 20 other organs would show merely congestion.[7] Lately, Lefer also proposed a more problem oriented approach, especially in non-teaching hospitals, pointing out that in the traditional necropsy the pathologist spent 90% of his time on routine dissection and only 10% studying the organs at fault.[10] His suggestion was later derided as a "disservice to medicine," despite the argument that a partial necropsy is better than no necropsy at all.[5 10] Another approach, this time from Leeds, was the proposal to attract more people to view the necropsy findings by showing slides and video tapes of the relevant findings in comfortable and well ventilated lecture rooms.[11]

Among other suggestions for reviving the necropsy, Szanto has emphasised the importance of the pathologist himself performing the examination rather than delegating it to assistants and residents.[3] Others want to improve communications between clinicians and pathologists. They wish to devise better methods of reimbursement or change the training of pathologists so that some could subspecialise according to systems or even choose between clinical pathology and anatomical pathology.[7] Yet above all there remains the incredible difficulty of obtaining consent for necropsies, especially when no relatives can be found or when the nearest relatives, all of whom must sign, are scattered all over the country. Increasingly one is left with the impression that people have come to regard the necropsy as mutilating, and would no more agree to having grandma cut up and stained with haematoxylin and eosin than would Sophocles' Antigone have given informed consent to have her brother's body exposed on the outskirts of Thebes to be dismembered by dogs. Add to this the facts that people often die at most inconvenient hours and that asking for permission is usually relegated to the most junior member of the team and there is much to be said for the Scandinavian system of consent being implied unless revoked within 12 hours of death. Not that some increase in necropsy rates might not be obtained by encouraging house staff to resort to the golden ball strategy:

"Mr Jones" was the old approach, "we tried everything to save your beloved mother in law. We tried drugs, we tried surgery, and when everything failed we even used the powerful remedy of having her swallow a gold ball. Of course you are welcome to pay for it, but we could try to retrieve it and save you the expense."

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Do toddlers risk visual damage from watching television for long periods?

This pastime is perfectly harmless.—J J KANSKI, consultant ophthalmic surgeon, Windsor.

What is the cause of painful cracks on the fingers, and what treatment is advised?

Cracks on the fingers are either on the fingertips adjacent to the free edge of the nail or around the finger joints, usually the extensor but occasionally on the flexor surface. They develop because the skin loses flexibility at sites of tension. This loss may be a sequel to skin diseases such as eczema, psoriasis, hyperkeratosis, callus, virus warts, etc, which produce thickening of the epidermis, especially the corneous layer, leading to loss of pliability. Conditions of low humidity, often in association with low temperatures, produce physical changes in the skin leading to so called chapping with cracks. The site of the cracks is determined by where the stress is applied to the skin. Treatment for any disease is paramount as well as rest for the affected digits so as to limit repeated tension on the cracks. Symptomatic improvement may follow the use of emollients—ointments rather than creams—that act presumably in a similar way to saddle soap on leather to prevent cracking.—ALAN B SHRANK, consultant dermatologist, Shrewsbury.