

A day in the working life of an academic Pathologist

Olusegun Ojo

*Professor of Morbid Anatomy,
Consultant Histopathologist,
Obafemi Awolowo University and Teaching Hospital, Ile-Ife, NIGERIA*

Its Thursday and its warm and sultry, the beginning of the tropical dry season. The day starts at 8.30 a.m. with the autopsy review meeting, a departmental clinical review meeting during which a case that had been selected from among those autopsies that were done during the previous week is discussed. It is a very important postgraduate teaching session for trainee Pathologists. To qualify, a case must have caught the eye of a Consultant Pathologist as one that is imbued with characteristic autopsy findings and clinicopathological lessons to be learned by every trainee Pathologist and added to the index of cases for clinical instruction of Medical Students.

During the meeting, the case is presented by the doctor that performed the autopsy. He opens with the details of the current illness of the patient and particularly the circumstances surrounding the death. Often it is also necessary to delve into the past medical history and the socio-economic background of the deceased. He then describes the organ and tissue changes that he observed at the autopsy while demonstrating these appearances to the audience. At the end a summary of the changes, the so-called anatomical summary, is made. It is on the basis of this summary that a final diagnosis is made.

The final diagnosis is the holy grail of autopsy practice and is a statement of the disease causing death as well as how death is caused.

Simple as this may sound, it takes considerable skill to construct the final diagnosis based on the evidence provided by the anatomical alterations in the tissues and organs. This would explain why the final diagnosis is taken as the most authentic diagnosis, superceding clinical diagnosis and is accepted by courts as the 'gospel' truth. The meeting ends at 9.30.

It is soon time to 'cut the surgicals' at 10 a.m. The 'surgicals' are the tissue specimens that are removed during surgical operations. Surgeons refer to them as biopsies. Biopsies are mostly from living patients and they may originate from any organ in the body including the brain. Making biopsy diagnosis is a most important part of the job of hospital Pathologist. The diagnosis is most frequently to be relied upon to identify the nature of the disease in the organ. A spot-on knowledge of the nature of the disease obviously should dictate the type of treatment it would require and the possible expected outcomes with or without intervention. "Cutting of surgicals' entails the act of naked-eye inspection of the biopsy, and a documentation of the observable anatomical changes in it. The tissue is sliced and sampled for laboratory processing. The laboratory process is elaborate and takes between 48 and 72 hours at the end of which glass slides are made ready for study under the light microscope. Cutting surgicals is an open-ended process, depending on how many biopsies arrived in the laboratory in the last 24 hours.

After cutting surgicals, it is time to take on the autopsy requests for the day. Two main types of autopsy requests exist: the hospital autopsy and the coroners' autopsy. Hospital autopsy requests obviously are made on patients who died while on admission in the hospital. Although performing every autopsy entails some kind of 'detective' work, hospital autopsies are generally easier to handle. The ante-mortem history and other details are available and the general aim is educational - to learn 'what went wrong' about the clinical management or 'what did we miss' while the illness lasted. Presenting findings of hospital autopsies is an integral part of the routine grind of hospital practice. These presentations are usually done at the 'death review' meetings of the requesting departments.

Coroners' autopsies, on the other hand, are done at the behest of a court, the police, a coroner or some official of state. The commonest purpose is to assist with the administration of justice. Most of the time, death had occurred suddenly and in unnatural circumstances or as a result of domestic or road traffic accidents. All too often, there is no past medical history, only some scanty story of the circumstance of death. For example, it might be something like: ".....he went to bed last night at 10 pm last night and was discovered dead in his bed by neighbours who became curious when he failed to appear in the morning as his habit was". For the reasons stated above, coroners' autopsies are to be approached with caution, care and the reports rendered in common, layman's language, devoid of medical jargons. It is not unusual that the presentation of coroners' autopsy report is made in a court of law.

Today, there are five autopsies to be done; three of these are coroners' cases and two hospital. The coroners' cases are victims of road traffic accidents. A passenger bus had collided with a private car on the ever-busy Ibadan - Ilesha highway. The driver of the car and his passenger as well as the front-seat passenger of the bus had died on the spot. The two hospital cases

are allocated to be done by the Trainee Pathologists while the Consultant takes on the three coroners' cases. The passengers were examined first. They had multiple injuries sustained largely because they were not wearing seat belts during their journeys. This is a commonplace finding in victims of road traffic accidents in this country.

The examination of the driver of the car revealed a totally unexpected finding apart from the injuries which caused his death. His liver was shrunken and had a distorted outline. The external surface, instead of being smooth, had become warty, and diffusely nodular, the nodules varying in size from a pinhead to a medium sized bean seed. No part of the liver was exempt from this transformation. The cut surface revealed similar appearances, but in addition, there was a much larger area, the size of a tangerine where there was a central zone of bleeding surrounded by yellowish mushy debris. Every Pathologist will recognise this incidental finding as liver cirrhosis. The largest nodule represents an area of cancerous transformation of the liver.

Cirrhosis is a most serious condition of the liver, representing the end-stage of all serious liver diseases. It arises from years of smoldering inflammation of the liver, a condition known as chronic hepatitis. Chronic hepatitis is associated with a sustained loss of liver cells, progressive replacement of the dying cells by useless scar tissue and an inexorable reduction in the liver's capacity to serve its numerous functions. Long-standing cirrhosis is very often complicated by liver cancer, the cirrhotic state being a fertile ground for cancer development.

In our country, as in much of sub-Saharan Africa, chronic hepatitis is quite common and it is caused by the Hepatitis B virus (HBV). It is estimated that about 14 percent of Nigerians, that is 17.8 million persons are infected with this virus and up to a quarter of that number would end up with liver cirrhosis. Chronic hepatitis B virus infection is a silent disease which only becomes dramatically symptomatic

some time after cirrhosis must have set in. Infact many cases may only be discovered incidentally at autopsy after death might have been caused by other some misadventure as in this case.

By the time the last autopsy is being concluded, it is about 3.30 pm. The slides for surgicals that were cut yesterday were ready for reporting. The reports must be ready before the end of the working day so that they may be dispatched early tomorrow morning to the requesting surgeons. We must retire for break into the staff common room now for some respite, coffee and sandwiches.

At 4 pm, the slide reporting session commences in the reporting room. The trainee Pathologist who had cut the surgicals with me yesterday opens by presenting each case after which he proffers his own opinion. He is asked to give evidence in support of his diagnosis. After some discussion, a diagnosis is arrived at. This exercise is time-consuming indeed. Reporting slides, very much like autopsy work, is very much akin to what goes on in a court room. Material evidence, in the form of observable naked-eye and microscopic alterations in tissue structure is presented. Then arguments are advanced in support of the culprit disease. Every line of argument is critically examined in the light of the evidence presented. The judge of the court is the Pathologist who then comes to a decision at the end of the whole exercise. This is the reason why other medical practitioners look at Pathologist as the final arbiters or judges in the art of medical diagnostic argumentation.

On occasions, it is impossible come to a definitive diagnosis at once. It then becomes necessary to subject the tissue to more advanced techniques or sometimes, to seek the opinion of another Pathologist.

Oops, its 6 pm. Its time to carry out some hospital administrative work now. We must leave the hospital before 7 pm. On the way home, I will have to pass through my University office. I am sure my mail file will be waiting for my attention. This is the lot of an academic Pathologist. The balance of the workload is on the side of the hospital today. Who knows what the University mail might dictate for tomorrow – a College (of Health Sciences) Review Panel Meeting at 10 am or an emergency Senate Meeting at 4 pm. Of course, being my primary employers, I often have to rearrange my clinical duties around the University engagements but the hospital duties must be done everyday, sometimes during the small hours.

Lest I forget, I need to sit up tonight to prepare my Monday lecture to the year I clinical students.

Editors Note

The Postgraduate Forum is created to give opportunity for Residents and Postgraduate Students in Pathology, as well as their Trainers, to write on any topic or issue that impinges on their training and the training programmes, as the case may be. Articles of this genre are hereby invited.