
Some Traffic Signs For Better Pathological Diagnosis

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IN A COUNTRY like Bahrain where postmortem examination is yet to gain public acceptance, the accuracy of the clinical diagnosis depends entirely on a high standard of antemortem biological, physical and optical investigations. These include among many others such methods as laboratory, radiological and ultrasonic investigations. By and large these depend on the experience of the pathologist as well as sound understanding on the part of his clinical colleagues of the procedures used to obtain, preserve and transport surgical specimens. Attention to these standard procedures will go a long way in avoiding unnecessary physical and psychological trauma of repeated surgical intervention (however trivial), to the patient. It will also avoid unnecessary embarrassment to the physician on facing the patient. For these reasons it is felt worthwhile to summarize these oft-neglected procedure.

The specimens need to be carefully selected taking care to avoid apparently degenerate or necrotic elements and at the same time ensuring that the main pathology is not missed. A margin of healthy normal tissue is very helpful when included. As for the size of specimen, the more the merrier!. At least in certain situations it will pay great dividends to have a pathologist help you to select the specimen.

Specimens must not be placed in water or saline instead of the 10 % formalin as over hydration of tissue will cause degeneration of the cellular elements. Care should be exercised to avoid unnecessary trauma to the tissue such as using crushing forceps, diathermy knives and squeezing large specimens into narrow containers. Most pathologists prefer their specimens not to be opened, cut or otherwise "mutilated" (no offence) by the clinicians. The reconstruction of such specimens is exceptionally difficult and often result in countless practical inconveniences including difficulty in the determination of true behaviour of neoplasms, identification of free excision edges of malignant neoplasms, processing of unnecessary blocks of tissue at a higher cost, delay in reporting and the loss of good demonstrable material to our resource — deprived museum.

In many respects pathologists always looked upon their specimens as their patients and consequently demanded — like the clinicians — to be better informed about the medical history, clinical presentation and other laboratory, radiological and operative findings of

their specimens. Experience has shown that clinicians who maintain a close and frequent professional (and perhaps social as well) relationship with the pathologist receive quicker and more informative reports. Many examples can be noted to demonstrate the value of relevant laboratory information in the histopathological diagnosis of a surgical biopsy. Reports on endocrine pathology always require the correlation with the hormone profile while liver biopsies need study of several haematological indices and biochemical enzymes and factors. Testicular biopsies for infertility must have as a prerequisite a complete semen and urine analysis including bacteriological culture. Bone marrow biopsies and smears should better be guided by full haematological investigations. Lymphomata especially Mediterranean lymphoma and multiple myeloma require immunoglobulin study. Renal glomerular disorders are better diagnosed using immunofluorescence techniques. Trophoblastic diseases must always be aided by quantitative estimation of human gonadotrophin level. The list could be multiplied ad libitum. As my radiologist friend says to his clinical colleagues "keeping secrets from us will only harm your patients".

The study of radiology deals with shadows while that of pathology with substance. The correlation therefore of these shadows with the gross and microscopic appearances of surgical specimens will strengthen the diagnostic skills of radiologists and explain the errors of radiological interpretations. On the other hand, radiological study has always been of great diagnostic and educative value to clinicians and pathologists. It is well known that the nature of lesions arising from bones, central nervous system, urinary and gastrointestinal tracts are better diagnosed histologically after the radiological studies are made.

Since a histopathologic report is fundamental for any operative and therapeutic measure to be adopted the surgical pathologist must have a background of rich experience in clinical medicine. Previous training in clinical dermatology is therefore essential for making a competent dermatohistopathologist. The general pathologist however, must have a sound knowledge of the anatomy and physiology of the eye to deal with ocular pathology specimens. The groups of pseudomalignant neoplasms seem to be expanding unless the pathologist is conversant with their clinical picture he may lose the solid ground. On the other hand some difficulties are experienced in differentiating neoplastic from inflammatory conditions. A typical example of this case is Ewing's sarcoma which clinically, radiologically and even pathologically may be mistaken from chronic osteomyelitis.

In conclusion, one may say therefore that the effective, accurate and reliable pathological diagnosis is at least as much a function of the clinician's awareness of the problems of pathology and his willingness to co-operate and communicate, as it is of the competence of the pathologist. □□