Handling the “difficult” biopsy specimen

The solo pathologist has been compared to a long distance marathon runner whose woes are known only to the runner. Many of us work with similar harsh conditions. A good way to address these issues is to develop a close working relation with the clinician. Insist on a relevant clinical history with personal patient data, clinical impression, diagnostic procedure performed, details of the surgery findings, and imaging films. See that the biopsy specimen has arrived in the right container with the right preservatives used. Documentation is very important as specimen transposition is one major cause of error.

In some cases the diagnosis is almost obvious while grossing the specimen with the smart pathologist only confirming the gross impression by examining the stained sections under the microscope. Therefore no pathologist who reports biopsies should ignore grossing the tissue. With some experience many of the cases can be dealt with easily and disposed of. Some cases however may require further work. It may be an unusual case not encountered before, or a usual case encountered in an unexpected site, or an exotic disease encountered in a non-endemic area, or an unsuspected or serious condition has been inadvertently biopsied etc.

Pathologists should offer a second opinion when a fellow colleague seeks one as no one is really quite free from needing a second opinion, even if it is only to confirm an impression. Senior pathologists can only justify their status by being involved in such activities. (There are also the unseen benefits of “reverse mentoring” from the fresh juniors which can be quite rewarding).

Be proactive and read in advance about the suspected disease and its differential diagnosis. Remember you want to identify the lesion, try to predict its likely behavior and maybe help manage the condition. Second opinions can be sought from fellow pathologists, and if required specialty pathologists. Sleeping over and reconsidering the diagnosis the next day may sometimes help clear a fuzzy overburdened mind. The diagnosis may not be clear on H/E stain. Special stains, IHC marker studies, chromosomal or molecular techniques maybe required. A follow up biopsy may be required as a wrong sample site may have been inadvertently chosen. “Googling” in the internet is also another way to seek a second opinion in pathologist’s forum.

Pathology is a dynamic science with progress being made at dizzy speeds. Flow cytometry, karyotyping, FISH, microarray techniques and proteomics are now rapidly invading the work place. Biopsy pieces have shrunk in size over the years, yet overall expectations are higher than ever. IHC markers now number into the hundreds and their applications, limitations and utility can all be mind boggling. Search for simple algorithms that can help effectively recognize the lesion. Therefore unless you keep yourself razor sharp in the field, it is easy for you to degenerate with time into somebody like the “old pathologist” in Arthur Hailey bestselling novel “The Final Diagnosis” who was lost in a fast evolving medical world way back in 1959.

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