

# Move Towards Sub-specialisation in Surgical Pathology in Pakistan: Lagging behind the Clinical Colleagues?

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Histopathology or Surgical/Anatomic Pathology (SP/AP) is one of the main branches of diagnostic clinical pathology, aptly termed as “the pathology of the living” by legendary Lauren V Ackerman; and contrasts with the traditional thinking of pathology as “the study of the dead”. It may be considered the practical or diagnostic arm of the broad field of pathology; its distinction from the so-called academic pathology is blurring day by day.<sup>1</sup> Of necessity, the major function of SP/AP departments is provision of diagnostic information; but teaching, training, and research have also been important additional activities. Traditionally, practising pathologists have worked as general surgical pathologists, some of them with their own expertise/special interest in a particular area; but they preferred to be called “surgical pathologists” instead of “liver”, “neuro-”, “renal” or “dermato-” pathologists. In fact, till 1970s, many surgical pathologists also used to report other areas of diagnostic pathology such as hematology, microbiology, and clinical chemistry. This was sufficient, cost-effective and feasible for a small to medium-size laboratory of a district general hospital in those days.<sup>2-5</sup>

However, with major technological advancements in the field of SP/AP in recent past, marked changes have taken place in the working practice of large SP/AP departments; especially, those in academic or tertiary care centres, during the past three to four decades.<sup>2</sup> The workload has increased enormously together with greater demands on detailed reporting of biopsy specimens. In many countries, implementation of policies for specialist cancer/clinical care and multidisciplinary meetings, together with implementation of structured reporting, minimum reporting datasets, and increased sophistication of biopsy workup; especially related to cancer biopsy reporting, coupled with explosion of information, all have placed a huge burden on the reporting pathologists. In these circumstances, it was felt that it is not possible for an individual practising pathologist to be the “master of all”.<sup>4,5</sup>

As a result, an increasing number of large pathology departments in major academic centres; especially in developed countries, introduced subspecialty sign-out practice in their departments. In fact, now the general pathologists have become obsolete in such centres in the developed countries.

Potential benefits were thought to be increased efficiency, increased accuracy of diagnoses, shorter turnaround time (TAT), enhanced communications with subspecialised clinical services, decreased use of immunohistochemical (IHC) stains, and the fact that the amount of information and knowledge needed to stay up-to-date on best practices and new research can be overwhelming across a wide spectrum of general SP/AP activity. It was felt that since many of our clinical/surgical colleagues are subspecialised, we should also have the corresponding subspecialty knowledge and expertise. Additionally, it was also thought that learning for residents was improved, if their education comes from the experts in their knowledge areas.<sup>2-6</sup>

A number of factors have driven and resulted in this trend of sub-specialisation in SP/AP. The first and foremost among these was the needs of the market. Dedicated specialists in the fields of medicine and surgery have primarily driven this change; and these clinical specialists demanded the same sub specialization practice in diagnostic disciplines, such as radiology and pathology. Pathology appropriately responded accordingly, particularly in developed countries. Secondly, pathologists themselves have driven some of their own marketing and needs. Additionally, some sub-specialties were developed as the needs of a subspecialty centre for an in-house diagnostic facility. As a result of all these, the model of “everybody doing everything” slowly evolved into “everybody doing one thing”.<sup>7-9</sup>

The working of sub-specialties in SP/AP varied according to preferences of individual departments and their heads; but was mostly modelled on a working group, led by a senior or lead pathologist. Each subspecialty also had a research component, and provided a framework for collaboration among the different subspecialties and their academic pursuits.<sup>2</sup>

The original move to sub-specialise was entirely based on enthusiasm without objective evaluation of changes in cost or quality or for that matter, any input or output measure. Cost and quality, associated with both general and subspecialist units, are still poorly documented in the literature, and the need to establish baselines for these is a major challenge for pathologists. Although there is little data available, there is a suggestion that sub-specialised services are more expensive. Therefore, departments considering transitioning to a subspecialist model should carefully consider the financial and organisational implications, and recognise that this transformation is not free from problems or difficulties. A major drawback of sub-specialisation drive is the limited flexibility in a highly sub-specialised department, where the sudden absence of sub-specialists in one field results

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in a gap in cover for some specimens. In a general unit, this gap is usually filled by reallocating the work among the remaining pathologists; but with sub-specialisation, it necessitates the employment of a locum or referral of cases to a distant reporting organisation.<sup>6</sup> Therefore, it will be highly fruitful, if further sub-specialisation or any move to de-specialise is undertaken on the basis of objective measures, which should be carefully monitored.<sup>4-6</sup>

The field of histopathology has steadily developed in Pakistan, but is still of primitive level in most small to medium scale laboratories.<sup>9</sup> Quality histopathology is practised in only a handful of major laboratories distributed in major cities of the country. Some of these large pathology laboratories are practising sub-specialty sign-outs following the sub-specialisation trend in clinical specialties.<sup>9</sup> On the other hand, some sub-specialties of SP/AP were developed, as in developed countries, in the mono-specialty medical centres.<sup>10,11</sup> With expertise, these centres evolve from a sub-specialty department to a general SP department; some even becoming a centre of excellence in their SP field, thus providing highly specialised surgical pathologists who had initially qualified as generalists.

In summary, the current trend in SP/AP is still towards sub-specialisation. This transition is also taking place in big SP/AP departments in developing countries, including Pakistan. Although, there is still little objective data to support or refute this change; however, this change overall seems to be acceptable to all stakeholders. There is a need to evaluate the pros and cons of this change in a systematic way, especially in resource-constrained countries.

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