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Medical science has reached its height of development. It has invented many techniques and technologies. Many of these technologies have now become basic need for the daily clinical work. But in the context of Nepal many of these basic needs are still luxurious. Immunohistochemistry (IHC) is one of them.

IHC is an essential component of histopathological examination of a neoplastic lesion. However, in our context histopathological examination and its conclusion, at times is made on the basis of assumption and experience due to lack of concrete evidence. As a result circumstances come across when histopathological result and prognosis don't match with each other. For example, there are differences between grade II and III gliomas. But there can be hardly any significant histological difference between the cases lying in the border zone between grade II and grade III or grade III and grade IV and thus it becomes difficult to classify the case grade II or III. As a result the prognosis may not be the same as expected. This is not uncommon in our context in Nepal. One typical example was a young boy who came to our OPD few years back with an angry looking mass in brain. Gross total excision was done and the biopsy report was grade II glioma whereas MRI images were more suggestive of anaplastic or high grade lesion. Everybody was happy with the biopsy report. However, there was recurrence of lesion after several months due to which he eventually expired. Had we had IHC technique we could have made proper diagnosis and planned treatment accordingly with chemo and radiotherapy.

At this modern stage of science and technology, is only a general histopathology

Immunohistochemistry: A Basic Need or a Luxury?

without IHC sufficient to diagnose and treat a neoplastic lesion in Nepal? Don't we really need something else in addition to know further in detail about such lesions? If yes, isn't this a right time? Isn't IHC a right choice?

Few questions that IHC can answer but not simple biopsy are how fast is a tumor growing? What are the good and bad prognostic factors present in the tumor? If the tumor belongs to grade III, is it near to grade II or near to grade IV? Are there any other possible differential diagnosis to this lesion, if yes what are they? Without answering these questions how can a histological report be a complete one? And how reliable a biopsy report can be?

IHC has become a routine practice of histopathological evaluation in highly developed countries. It is also quite frequently used in south Asian countries. At least it is used whenever necessary. However, it is still a mystery and luxury in our context. The biggest hurdles in our context for the use of IHC are ignorance of medical practitioners and cost factor. Many of us still do not understand the importance of this technology and thus don't recommend for it. Similarly antibodies and other reagents used in IHC are costly and can be the waste if not used in certain time frame.

An example of use of IHC is detection of MIB-I. It is the marker of proliferation of any neoplastic lesion of human body. Higher MIB-I index means higher degree of proliferation of tumor and thus poorer prognosis irrespective of its grade. It is especially very helpful to assess brain tumors

Hence, time has come that we should upgrade our histopathological technology. We must try to evaluate both diagnostic and prognostic factors not merely making histological diagnosis.