Transbronchial lung biopsy in diffuse parenchymal lung disease - Question still remains whether to go for surgical lung biopsy or not?

Sir,

We read with interest the original article titled, “Transbronchial lung biopsy (TBLB) in patients with diffuse parenchymal lung disease (DPLD) without ‘idiopathic pulmonary fibrosis (IPF) pattern’ on high resolution computed tomography scan–Experience from a tertiary care centre of North India” by Sindhwani et al.\(^1\) First, we would like to congratulate the authors for their excellent diagnostic yield of TBLB (85.6%). According to the earlier published literature, in DPLD, histological support for a specific diagnosis can be obtained using TBLB.
in 29–79% of cases only.[2] Considering the fact that in most of the studies, the most common diagnosis obtained was IPF/usual interstitial pneumonia (UIP) pattern, which has been excluded radiologically by the authors to further make the results more commendable.

Once we get the tissue and the histopathological diagnosis from TBLB, the next question that comes to the mind is–is the diagnosis reliable? A study by Votava et al.[3] reveals that in two out of every three cases (67%), surgical lung biopsy (SLB) may change the diagnosis reached by TBLB. SLB is considered gold standard for the diagnosis of DPLD. Hence, if we go by the results of this study and treat the patients on the basis of diagnosis made using TBLB in 67% of cases, we will be treating the wrong disease. For the DPLD, it is said that “diagnosis is prognosis,” and an incorrect diagnosis may adversely affect the accuracy of prognostication, selection of appropriate therapy, and planning of transplantation.[4] Hence, in vast majority of patients, SLB will still be required to clinch the diagnosis.

SLB should ideally be done in all patients with DPLD. However, normally, it is not done frequently due to advanced stage, severity of disease, presence of comorbidities, and reluctance on the part of treating physician or the patient. Even when SLB is performed, there are some limitations that may affect the diagnosis. (1) Sampling error–identification of a histological pattern that is not representative of the predominant process.[5,6] (2) Significant interobserver variation among pathologists–i.e., the level of agreement on the first choice diagnosis being at the lower limit of clinical utility.[7] These two major limitations of SLB are present to a much greater extent with TBLB, which provide much smaller samples that do not allow an assessment of extent and distribution of fibrosis in biopsied lobe.

In IPF, it is now well-recognized that there are the areas of nonspecific interstitial pneumonia (NSIP) like changes.[4] The finding of NSIP in one lobe and UIP in another lobe is also not infrequent. In the present study, TBLB samples were taken only from one side (to prevent the possibility of bilateral pneumothorax). Biopsies taken from one side may fail to give the complete picture of the disease progress and hence the specific diagnosis. Further, the authors have taken 6–8 biopsies in each patient on the basis of that histological diagnosis was made. However, the authors did not mention that what was done in cases, where there was a discrepancy between two or more biopsy samples from the same patient. A study of 109 patients done by a Michigan group revealed that survival was better when all the biopsy samples were consistently NSIP as compared to cases where there was discordance among biopsies (UIP/NSIP at different sites). Identification of even a single biopsy with UIP pattern was associated with worse prognosis.[3]

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Conflicts of interest
There are no conflicts of interest.

Swetabh Purohit, Naveen Dutt, Lokesh K Saini
Department of Pulmonary Medicine, AIIMS, Jodhpur, Rajasthan, India
E-mail: drnaveendutt@yahoo.co.in

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