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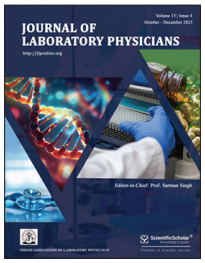

Letter to Editor

Role of intraoperative consultation in gynecological malignancies

Seetu Palo[1]

[1]Department of Pathology and Lab Medicine, All India Institute of Medical Sciences, Bibinagar, Telangana, India.

***Corresponding author:**
Seetu Palo,
Department of Pathology and Lab Medicine, All India Institute of Medical Sciences, Bibinagar, Telangana, India.

seetu.pearl@gmail.com

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Dear Editor,

I read with great interest the recently published article by Kediya *et al*. titled "Evaluation of the accuracy of intraoperative frozen section and imprint cytology (IC) in gynecological neoplasms – A descriptive cross-sectional study of 50 cases in tertiary care center" and applaud the authors for their scientific contribution.[1] I would like to put forth certain additional key points for consideration that would facilitate drawing appropriate conclusions from the article.

In the management of gynecological malignancies, IC and frozen section histology (FSH) primarily aid in confirming the presence of malignancy, assessing tumor margins, and identifying metastatic spread. In cases of ovarian cancer, FSH becomes vital, especially for women undergoing cytoreductive or staging surgery without a prior diagnosis of cancer. However, in predominantly cystic malignancies of the ovary, such as benign and border-line surface epithelial neoplasms, the role of IC and FSH becomes limited mainly due to the sampling bias, as only a small portion of the tumor is examined, which may not be representative of the actual underlying pathology. In this pretext, out of the included 34 ovarian neoplasms in the study cohort, seven cases were mislabeled as "benign" on IC, plausibly due to sampling error.[1] It is not clearly mentioned whether these seven cases were misdiagnosed on FSH as well. Park *et al*. studied the utility of FSH in a large cohort of 1,032 patients with mucinous ovarian tumors and concluded that mixed tumor histology, tumor size >12 cm, multilocularity, and presence of solid components were independent parameters that resulted in the upgradation of FSH diagnosis in the final pathological report.[2] Likewise, in the current article, a detailed subgroup analysis of pathological characteristics of all these misdiagnosed cases would provide a better understanding.

Among the histopathologically confirmed malignant ovarian epithelial tumors, Nomura *et al*. reported IC to exhibit superior diagnostic accuracy (97%) to that of FSH (91%), which correlates with the findings of the index study as well.[1,3] However, when it comes to overall diagnostic accuracy, the authors have found IC to be superior to FSH, which is in contrast to some of the existing literature.[3,4] Although the authors have aptly addressed the limitations of their study, namely, small sample size, heterogeneous tumor types, and location, further reasoning behind this finding can be enlisted. For example, Figure 2 of the index article[1] depicts a discordant case of mixed Mullerian tumor pertaining to the tumor histological type, but if tumor behavior is to be considered, the presence of malignancy was picked up on both IC and FSH. It is not clear whether such cases were considered concordant or discordant for statistical computations. One case (tumor type and site not specified) was initially reported as malignant on FSH but turned out to be benign on final histopathological analysis [Refer Table 1 of the index article].[1] The inclusion

of a brief note along with microphotographs of this case would be very informative as it will address the diagnostic pitfalls. Moreover, it would also benefit to briefly highlight how the correct or incorrect intraoperative diagnoses affected the course of surgery so that a qualitative viewpoint on the role of IC and FSH can be inferred. There is no mention of sentinel lymph node analysis and surgical margin analysis, the most important indications of intraoperative consultation in cervical and endometrial malignancies, in the article.

Finally, although IC and FSH remain an invaluable tool in many surgical scenarios, it is essential for pathologists and clinicians to understand their limitations in gynecological malignancies and exercise caution when interpreting intraoperative IC and FSH results to ensure optimal oncological outcomes.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

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