



Letter to the Editor: Development of a Rapid Intraoperative Point-of-Care Method Using Tissue Suspension to Differentiate Parathyroid Tissue: A Possible Substitute for Frozen Sections

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Accepted: 31 July 2021 / Published online: 15 August 2021
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We congratulate the authors for their innovative alternative to Frozen section (FS) for parathyroid tissue differentiation described in “Development of a Rapid Intraoperative Point-of-Care Method Using Tissue Suspension to Differentiate Parathyroid Tissue: A Possible Substitute for Frozen Sections” which we discussed in our departmental Journal Club. Confirmation of tissue origin before auto transplantation of parathyroid tissue during thyroid and parathyroid surgery is ideal and conventionally done by Frozen section. As suggested by the authors, FS has its limitations and cannot be readily made available at most centers due to constraints of instrumentation, cost and manpower.

Given its ease of performance, cost, minimal additional manpower, AST/ LDH ration appears to be a promising tool in thyroid and parathyroid surgery. However, we would be grateful to authors for the following clarifications.

17 out of the 69 patients (25%) were excluded as AST, LDH values <10 IU/L [1]. Such a high exclusion rate is very likely to impact the overall sensitivity and accuracy of the method. Fat and Lymph nodes are commonest differentials of a parathyroid and almost 50% of adipose tissue have been excluded in this study. If feasible, the authors suggest estimation of various isoforms of LDH and or AST as specific isoforms are concentrated in various tissues.

AST/ LDH being a ratio is unlikely should not be impacted by the brand/technique of analyzers. However, if

this is unavoidable, then each lab/ machine would have to determine its own cutoffs and thus limiting the universal application of this very promising tool.

Tissue handling during surgery along with other factors like anesthesia, vit C, alcohol, etc. is likely to impact the levels of absolute values/ ratio of AST and or LDH [2]. Can the authors share their experience and feasibility of AST/ LDH in FNAC washouts as this could help in situ preservation of parathyroid tissue which has not been de vascularized and also reduce the impact of tissue trauma. Histopathological confirmation of tissue of origin of the same tissue in this experimental study design would have made the results more robust.

References

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