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LETTER TO THE EDITOR

Diagnostic and therapeutic standardization still lacking in parotid lymphoma: elucidating the evidence gaps in a rare entity

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Dear Editor,

I read with great interest the systematic review by Di Santo et al. summarizing the evidence on the diagnosis and treatment of parotid gland lymphoma (PGL) [1]. This rare and heterogeneous disease poses significant challenges that are highlighted by the authors' synthesis of 20 retrospective studies. While providing a valuable overview of the current landscape, the review clearly demonstrates the lack of standardization and need for prospective research to optimize PGL care. A major concern illuminated is the poor accuracy of fine needle aspiration cytology (FNAC), the usual first-line test for PGL diagnosis [2]. Ultrasound, CT, MRI, and PET-CT may variably identify lymphoma features. Of these, MRI is considered the gold standard tool for parotid assessment. Upon MRI evaluation, parotid lymphoma typically exhibits low signal intensity on T1-weighted images and fluctuates between low-to-high signal intensity on T2-weighted images. There is a variable enhancement following contrast administration, and a restricted water diffusion in the lymphoma tissue, which appears hyperintense on diffusion-weighted imaging (DWI) and hypointense on ADC maps. These characteristics reflecti the lymphoma high cellularity [3]. Despite these advanced imaging techniques, tissue biopsy remains essential for definitive diagnosis and grading [4]. However, the authors found invasive parotidectomy was the diagnostic procedure in up to half cases. This excessive surgery exposes patients to risks including facial nerve damage, underscored by the study's finding that frozen section during parotidectomy was sometimes used to prevent facial nerve sacrifice once lymphoma was identified. The reliance on parotidectomy is likely due to suboptimal accuracy of core needle biopsies in this setting as well. More research is clearly needed to validate emerging modalities like multiparametric MRI and combined FNAC with flow cytometry, which may enhance non-invasive diagnostic capabilities. An ultrasound-guided core biopsy requires additional study to clarify its role in sparing patients' diagnostic parotidectomy [5]. Additionally, the focus on mucosa-associated lymphoid tissue (MALT) lymphoma, indolent nature of most cases, and lack of long-term outcomes limit the generalizability of conclusions, as the authors noted [6, 7]. Expanding evaluations beyond diagnostic rates to include treatment responses, survival, quality of life and costs is critical to fully assess care strategies. Finally, this review provides a foundation but also exposes significant gaps in the evidence guiding all aspects of PGL management. The author's call for multicenter prospective trials is absolutely warranted—they are essential to establish standardized

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diagnostic algorithms, define each modality's sensitivity and specificity, clarify the optimal extent of surgery, and evaluate emerging nonsurgical therapies. PGL's rarity poses challenges and amplifies the need for collaborative research efforts. I appreciate the authors illustrating the current shortcomings; this will hopefully galvanize researchers to address these knowledge gaps and improve patient care.

Data availability Not applicable.

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