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Research Article

Lymphoid Papillary Hyperplasia: A Rare, Misleading Tonsillar Condition

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ABSTRACT

Lymphoid papillary hyperplasia (LPH) of the tonsils presents a unique diagnostic challenge due to its resemblance to malignant tumors. This benign condition is characterized by finger-like projections and enlarged follicles within the tonsillar tissue. While relatively uncommon, LPH holds significant clinical importance, as it can be mistaken for more severe pathologies, leading to unnecessary medical interventions. However, with accurate diagnosis, typically through histopathological examination, LPH can be effectively managed through tonsillectomy. The case of a 12-year-old girl underscores the clinical significance of LPH. Initially presenting with symptoms suggestive of a more serious condition, her diagnosis of LPH highlights the necessity for precise identification to avoid unnecessary treatments and alleviate patient anxiety. Tonsillar abnormalities often raise concerns about malignancy, prompting clinicians to pursue aggressive interventions. However, in cases of LPH, understanding its benign nature is crucial to prevent overtreatment and ensure appropriate care. Tonsillectomy remains the primary treatment modality for LPH. By removing the affected tissue, clinicians can alleviate symptoms and mitigate the risk of misdiagnosis-related complications. Additionally, accurate identification of LPH provides patients and their families with reassurance, eliminating fears associated with malignancy and facilitating informed decision-making regarding treatment options. The importance of distinguishing LPH from other tonsillar diseases cannot be overstated. Conditions such as lymphoma, squamous cell carcinoma, and infectious processes may present with similar clinical features, necessitating meticulous evaluation to ensure accurate diagnosis and appropriate management. In the case of LPH, characteristic histological findings, including lymphoid hyperplasia and papillary projections, aid in differentiation from malignant entities.

INTRODUCTION

Although most growths in the tonsils are unfortunately malignant, there are rare exceptions like lymphoid papillary hyperplasia (LPH) [1,2]. Palatine tonsils are a common site of infections mainly in children but unlike common inflammatory conditions such as chronic tonsillitis, LPH macroscopically appears as grape-like clusters (polypoidal) and reveals finger-like structures (papillary) with non-atypical epithelial cells when seen under the microscope [2]. This case report highlights a rare finding with limited documentation in Indian medical literature where a young patient with clinical picture of bilateral chronic tonsillitis was ultimately diagnosed with this uncommon benign entityon histopathological evaluation.

CASE REPORT

A 12 year old Indian girl presented with complain of foreign body sensation in throat since 3 years which was worsening since one month resulting in dysphagia and odynophagia. She had no other symptoms such as fever, cough, expectorations, significant weight loss, dyspnoea or haemoptysis. She gave history of repeated episodes of tonsillitis in the past. No other significant past history or family history was given.

On physical examination, she was found to have polypoidal lesions in her bilateral palatine tonsil which showed cobblestone appearance. Clinically, a papillary neoplasm was suspected. Tonsillectomy was performed to relieve the symptoms and to confirm the diagnosis on histopathological examination. The excised specimen was sent to histopathology department for further evaluation. The submitted specimens wereand 2.3 x 1.4 x 1.2 cm in dimension, exhibiting a friable granular surface with multiple papillary configurations. approximately 2.5 x 1.2 x 1.1 cm .3 x 1.4 x 1.2 cm in dimension, exhibiting a friable granular surface with multiple papillary configurations.

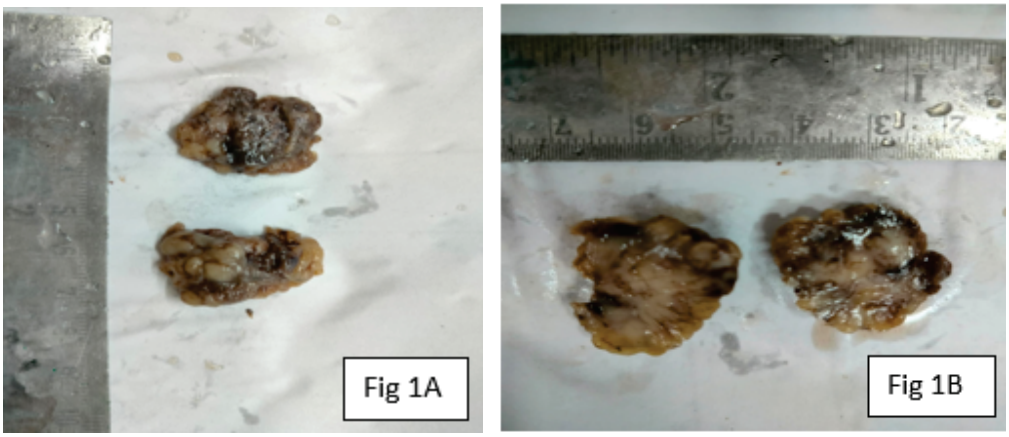

Figure 1A & 1B: Gross appearance of tonsillectomy specimen showing friable granular surface and multiple papillary configurations

Microscopic evaluation revealed a polypoidal lesion characterized by numerous papillae lined by stratified squamous epithelium. This epithelium displayed mild hyperplastic changes on higher magnification, with occasional parakeratosis and hyperkeratosis. Beneath the epithelium, follicular lymphoid hyperplasia dominated the underlying papillary structures. Characteristically, this hyperplasia manifested as enriched lymphoid tissue with prominent germinal centres and diminished follicular cortices.

Sparsely distributed plasma cells and mononuclear cells were observed within the fibrous septa encircling the lymphoid nodules, occasionally infiltrating the superficial mucosa. Notably, the examination found no areas of confluent solid sheets with monomorphic hyperplastic cells within the lymphoid tissue. No malignant features were identified in the submitted tissue. Based on these histopathological findings, the diagnosis of Lymphoid Papillary Hyperplasia of the Bilateral Palatine Tonsil was rendered.

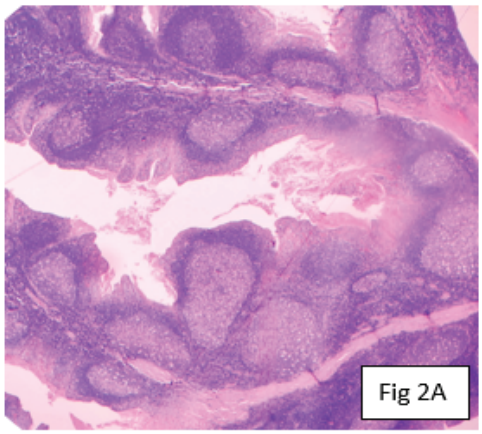

Figure 2A: Under 10X Objective Lens - Numerous papillae with follicular lymphoid hyperplasia.

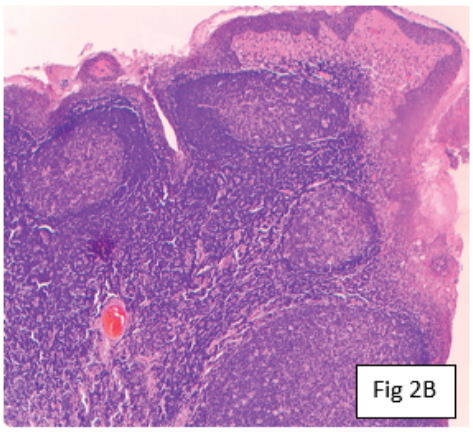

Figure 2B: Under 40X Objective Lens- Papillary structure lined by stratified squamous epithelium with underlying follicular lymphoid hyperplasia manifested as enriched lymphoid tissue with prominent germinal centers and diminished follicular cortices.

DISCUSSION

Lymphoid papillary hyperplasia (LPH) represents an uncommon pathological entity, posing a challenge for accurate clinical diagnosis [2]. While frequently described in Japanese medical literature, documented cases within the English medical literature, particularly among the Indian population, remain scarce. Clinical presentation of LPH may encompass symptoms associated with both benign and malignant conditions such as oral squamous papilloma and lymphoid polyposis, necessitating histopathological examination for definitive diagnosis and subsequent treatment planning [1-3]. Kardon et al. [4] have described a rare non-neoplastic lesion, termed "Tonsillar lymphangiomatous polyps," which can clinically and macroscopically mimic LPH. However, histological analysis reveals a distinct characteristic feature in these polyps: submucosal proliferation of endothelial-lined lymph-vascular channels within a fibrous, lymphoid, or adipose stroma. This finding contrasts with the prominent lymphoid follicle hyperplasia observed in LPH [4].

The precise etiopathogenesis of Lymphoid Papillary Hyperplasia (LPH) remains elusive. While the majority of cases present sporadically, familial occurrences with autosomal dominant inheritance have also been documented [2]. Borromini et al. [5] posited a potential link between disease onset and external triggers, such as viral or environmental factors, which may predispose individuals to the development of reactive, aberrant germinal centres within lymph nodes. Notably, Epstein-Barr Virus (EBV) infection has been implicated as a potential trigger for this aberrant proliferation leading to tonsillar reactive hyperplasia. Consequently, even in the absence of a suggestive clinical history, virological testing to exclude EBV or HPV infections is considered crucial [5]. Additional possible contributing factors beyond recurrent inflammation include hormonal influences, neoplastic processes, and congenital anomalies with autosomal dominant inheritance [6]. Within the context of this case, chronic inflammation may represent a potential etiological contributor to the reported condition.

CONCLUSION

Lymphoid papillary hyperplasia (LPH) represents a rare pathological entity primarily affecting the palatine tonsils of young individuals, particularly within Asian populations. While the precise etiology remains unclear, recurrent inflammation is suspected to play a triggering role. Recognizing LPH holds significant clinical importance due to its deceptive presentation. Despite resemblance to malignant lesions, LPH remains a benign, likely non-neoplastic process. Histopathological examination readily differentiates LPH from true neoplastic lesions, facilitating definitive diagnosis and guiding towards a minimally invasive intervention like tonsillectomy. Prompt and accurate diagnosis prevents unnecessary and potentially harmful surgical or medical interventions, offering significant benefit to patients. Thus, awareness of this entity among pathologists is crucial to avoid misdiagnosis and its associated consequences.

ETHICS APPROVAL

All necessary approval including ethical approval has been taken from the Institutional Human Ethics Committee before conducting this study.

CONFLICT OF INTERESTS

Authors declared that there is no conflict of interest.

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CONSENT FOR PUBLICATION

All necessary consent for publication was obtained by authors.

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