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Editorial

Hashimoto's thyroiditis with giant cells and granulomas: A view point

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Hashimoto's thyroiditis is one of the common cytodiagnosis in the routine clinical practice of thyroid lesions. The diagnostic role and utility of aspiration cytology by FNAC is proved fact in thyroid diseases. FNAC is OPD procedure, cost effective, non invasive and tolerable diagnostic tool to the patients to avoid unnecessary burden of surgery. The aim of this editorial is to highlight the role of FNAC in Hashimoto's thyroiditis (HT) and varied spectrum of cytomorphology viz granulomas and giant cells in it.

We encountered a case of 45 yrs female came to surgical OPD with large mass in the neck since 9 months. All the investigations were done and revealed mild hypothyroidism. FNAC was advised. To our surprise, we found classical picture of Hashomoto's thyroiditis as numerous sheets and clusters of oxyphilic /hurtle cells with polygonal cells with abundant eosinophilic granular cytoplasm (Figure 1) having round to oval hyperchromatic nuclei along with many multinucleated giant cells (Figure 2) and epitheliod cells aggregates forming granulomas(Figure 3) on a background of plenty of mature small lymphocytes.

In the present medical literature, few cases of HT with granulomas and giant cells were reported. Regarding statistics, Rathi M et al [1] reported 12% cases of granulomas and 6% cases of giant cells in HT. Jayaram et al [2] had 16% and 39% cases of granulomas and giant cells formation in Hashomoto's thyroiditis in his study. Handa et al [3] not reported any case of granulomas in his article. Kini et at. [4] not recorded any case of granulomas or giant cells in her study in 1981.

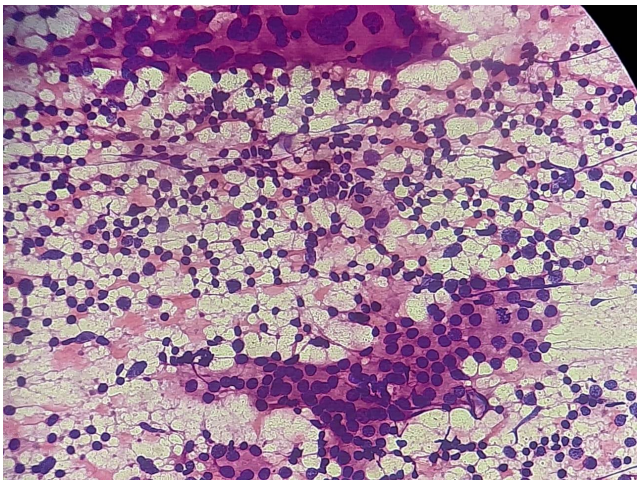

Figure 1: Cytomorphology of Hashimoto's thyroiditis with oxyphilic cells and lymphocytes (H&E,x400)

Majority of the cytomorphological features were lymphoid epithelial ratio, Hurtle cells, lymphoid follicles as per Rathi M et al. [1] The etiology of the granulomas formation in HT not proven yet.Why granulomas are formed in Hashimoto's thyroiditis is research topic.But possible justifiable explanation for the granulomas and giant cells

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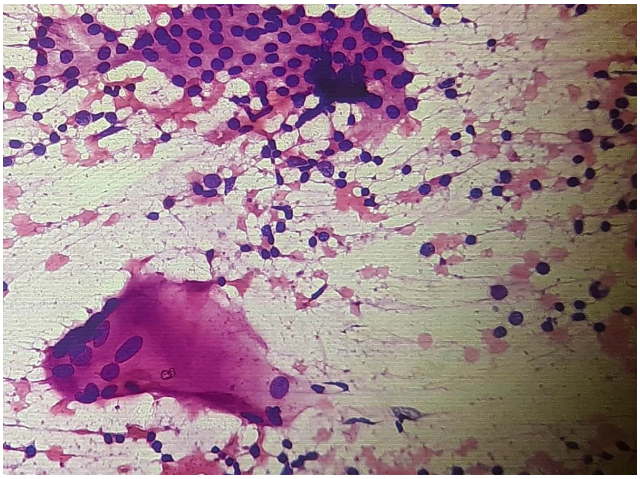

Figure 2: Light microscopy of HT with multinucleated giant cells on cytology (H&E,x400)

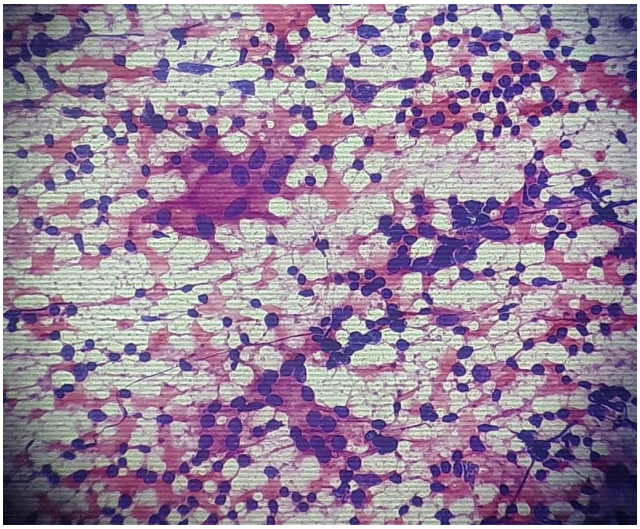

Figure 3: HT with epitheliod cells aggregates forming granulomas (H&E,x400)

formation in HT is its chronic autoimmune etiology.[1,3] The immune system of these patients are primed for granulomas in HT.[1,4]

Regarding differential of HT, subacute deQurevain thyroiditis,Rhematoid, sarcoidosis, Tuberculosis are there.[1,2] but on cytomorphology one can differentiate it from HT due to its classical appearance as discussed above.

To conclude-FNAC in thyroid lesions are safe, practical, easy and rapid diagnostic tool, to avoid invasive means to the patients. It eliminates false positive and false negative bias in diagnosis on OPD basis due to its classical cytomorphological features in HT. In this editorial, highlighted the granulomas and giant cells formation in Hashimoto's thyroiditis as only handful of cases are reported in literature. The knowledge of these entities are definitely useful to the budding cytopathologist in near future.

Conflict of Interest

None.

References

1. Rathi M, Ahmad F, Budania SK, Awasthi S, Kumar A, Dutta S, et al. Cytomorphological Aspects of Hashimoto's Thyroiditis: Our Experience at a Tertiary Center. *Clin Med Insights: Pathol*. 2014;7. doi:10.4137/CPath.S1358.
2. Jayaram G, Iyengar KR, Sthaneshwar P, Hayati JN. Hashimoto's thyroiditis-A Malaysian perspective. *J Cytol*. 2007;24(3):119–24.
3. Handa U, Garg S, Mohan H, Nagarkar N. Role of fine needle aspiration cytology in diagnosis and management of thyroid lesions: A study on 434 patients. *J Cytol*. 2008;25:13–7.
4. Kini SR, Miller JM, Hamburger JI. Problems in the cytologic diagnosis of the "cold' thyroid nodule in patients with lymphocytic thyroiditis. *Acta Cytol*. 1981;25(5):506–12.

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