

[www.jmscr.igmpublication.org](http://www.jmscr.igmpublication.org)

Impact Factor: 1.1147



**Journal Of Medical Science And Clinical Research** ISSN (e): 2347-176X

IGM Publication

An Official Publication Of IGM Publication

## **Intraparenchymal Infected Epidermal Cyst in Thyroid Fine Needle Aspiration Cytology- An Unusual Finding**

Mukta Meel<sup>1</sup>, Sunita Bhargava<sup>2</sup>, Isha Aggarwal<sup>3</sup>

Authors name a Department of pathology, RNT medical college, Udaipur, (Rajasthan)

drmuktab@yahoo.com

[sunitabhargava57@gmail.com](mailto:sunitabhargava57@gmail.com)

mittalishu88@yahoo.com

Author of correspondence: Mukta Meel department of pathology, RNT medical college, Udaipur, Rajasthan

Email-drmuktab@yahoo.com

### **ABSTRACT**

*Epidermal inclusion cysts are ubiquitous in the human body but rare in thyroid. Epidermal cysts are unilocular and well circumscribed. Epidermal cyst using fine needle aspiration cytology has been reported from various sites. However presence of epidermal cyst in thyroid aspirate has been rarely reported. Here, we report an unusual case in which aspiration cytology revealed presence of epidermal cyst in thyroid with superadded infection.*

*Keywords-- Epidermal cyst, Fine needle aspiration cytology,*

## **THYROID**

### **1. INTRODUCTION**

Epidermal inclusion cysts are common, benign subcutaneous typically asymptomatic masses ranging from 1 to 4cm in size [1]. They may occur anywhere in body, with a predilection for face, neck and trunk. Uncommon cases of epidermal cyst

Were reported in bone, brain, breast, kidney and spleen[2]. However, presence of an intraparenchymal epidermal cyst of thyroid were rarely reported by Fine Needle Aspiration Cytology( FNAC).

Mukta Meel<sup>1</sup>, Sunita Bhargava<sup>2</sup>, Isha Aggarwal<sup>3</sup>

Here, we report a case of 55year old lady who presented with thyroid enlargement

## **2. CASE REPORT**

A 55-year old female patient was admitted to otorhinolaryngology department with the complaint of midline neck swelling with hyperemia and pain. Then she was referred to the cytology section with the history of swelling in thyroid region since 15years. The swelling was insidious in onset and slowly progressive in size which became painful and rapidly enlarging since 2 weeks. Patient also complained of difficulty in eating, drinking. Swelling was moving with deglutition. On examination a 8×4cms swelling was present in midline neck extending in left side. Swelling was soft to firm in consistency, overlying skin was stretched and temperature was also raised. Patient also complained of fever since 3 days

with chills and rigors. She denied prior trauma to the area. USG of thyroid was carried out which revealed a space occupying lesion in isthmus extending to left lobe of thyroid with internal echogenecity.

FNAC was performed by 25G needle fitted with a 10cc syringe. Thick yellowish material mixed with brownish fluid came out. The smears were prepared, air-dried and stained with May-Grumwald-Giemsa (MGG) stain. The smears were cellular and showed presence of numerous anucleate squames, few squamous cells, polymorphonuclear cells, macrophages, pseudo giant cells and thyroid follicular cells in a background of colloid and red blood cells (Figures 1 and 2). A diagnosis of intraparanchymal infected epidermal cyst of thyroid was made on cytology and confirmed histologically after Hemithyroidectomy (Figure 3).

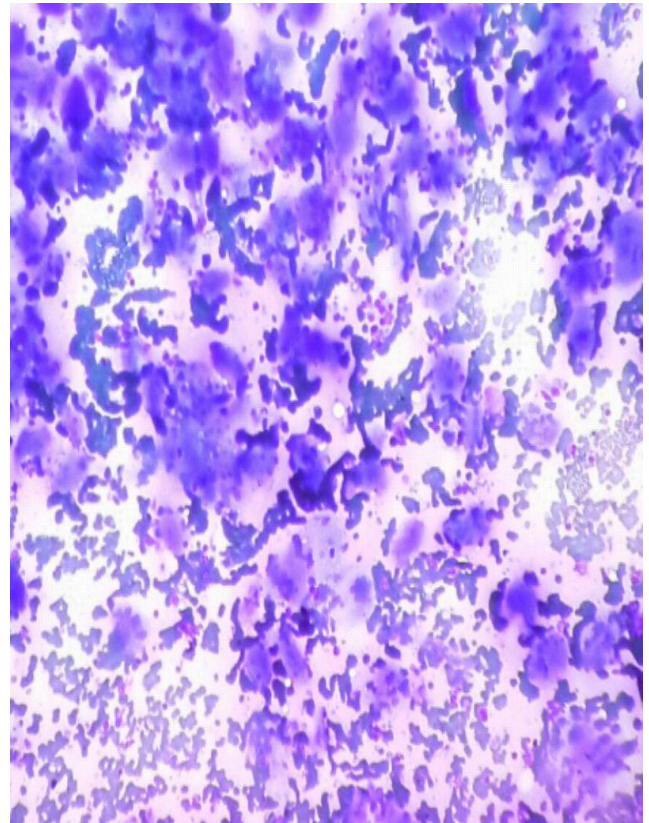


Fig. 1 Smear showing follicular epithelial cells and anucleate squames in the background of RBC and colloid (MGG X 100).

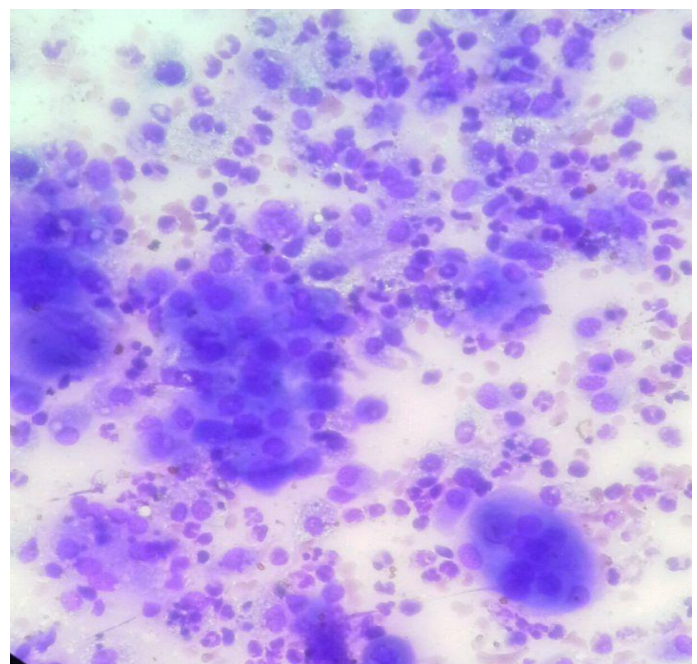


Fig. 2 Smear showing presence of thyroid follicular cells

forming pseudo giant cells and inflammatory infiltrate (MGG X 100).

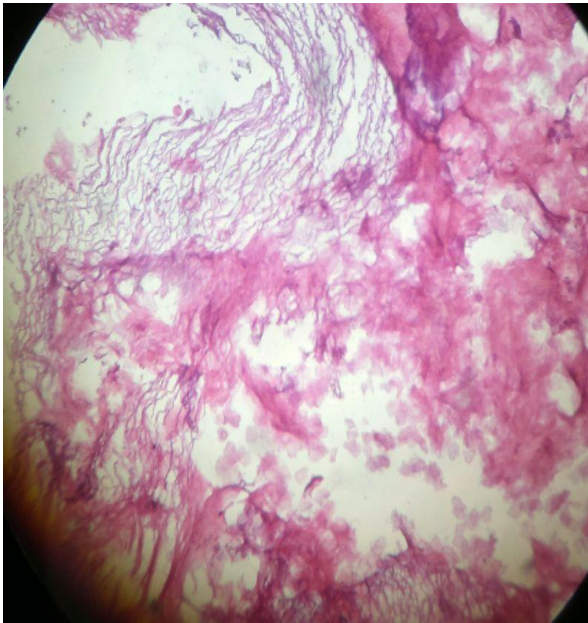


Fig. 3 Section showing keratin and Anucleate Squames (H and E X 400).

### **3. DISCUSSION**

Epidermal cysts are benign cysts developing from epidermal tissue. Inherent to all soft-tissues, epidermal inclusion cyst is the migration of epidermal cells into dermis. In the dermis, epidermal cells proliferate, collecting debris and keratin leading to formation of cystic space [3]. Histologically epidermal cysts are lined by squamous epithelium and surrounded by a fibrous layer [4]. Squamous cells are not a component of normal thyroid gland. Only 8 such cases of thyroid epidermal cyst have been reported with no sex predilection, the age range was 4 to 60 years with mean of 42 year [5]. The goal of presentation was to familiarize the cytologist with infrequent presence of epidermal inclusion cyst in thyroid.

### **4. REFERENCES**

- [1] Handa U, Chhabra S, Mohan H. Epidermal inclusion cyst: Cytomorphological features and differential diagnosis. *Diagn Cytopathol*; 35(12): 861-3, 2008.
- [2] Abdou AG, Assad NY. Intrarenal epidermoid cys presented as an enlarged multicystic kidney. *Saudi J Kidney Dis Transpl*; 21: 728-31, 2013.
- [3] Momeni MG, Anavim A. Giant epidermal inclusion cyst of buttock. *Skeletal Radiol*; 35: 864-6, 2006.
- [4] Weedon D. *Weedon's Skin Pathology*. 3rd ed. Elsevier; 442-6, 2010.
- [5] Chen KTK. Fine needle aspiration cytology of epidermoid cyst of the thyroid: report of a case and review of seven cases. *Diagn Cytopathol*; 35(2): 123-24,