INTERNATIONAL JOURNAL OF MEDICAL AND APPLIED SCIENCES
E-ISSN:2320-3137

Case report

AN UNUSUAL PRESENTATION OF INFECTED THYROID CYST

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ABSTRACT

We are reporting an unusual presentation of a infected thyroid cyst with extensive enlargement causing pressure symptoms. The patient presented with complaints of thyroid swelling since 1year. Patient developed severe dysphagia over a period of 1week. Dyspnoea and pain over swelling for past 2 days. After investigations he was diagnosed as a case of infected thyroid cyst(huge) left lobe with gross tracheal deviation to the right. Patient underwent aspirations by which his dyspnoea and dysphagia relieved. Followed by hemithyroidectomy.

KEY WORDS: Dyspnoea, Dysphagia, Infected thyroid cyst, Pain, Tracheal shift

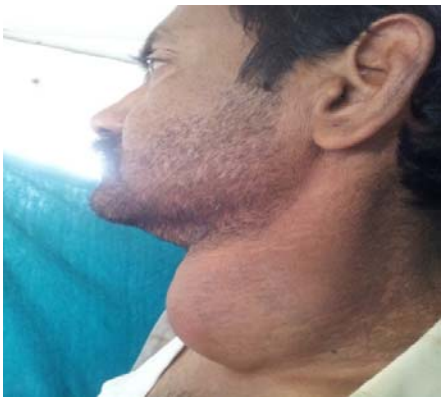
INTRODUCTION:

The thyroid cysts are a well recognised disease of thyroid gland. Routine ultrasound shows that over 30% of clinically isolated thyroid swellings are cystic or partially cystic. Tense swelling lesion may be hard and mimic carcinoma. Bleeding into a cyst often present with a history of sudden painful swelling.[1] Here we are presenting an unusual presentation of thyroid cyst.

CASE REPORT:

A 40 years old male patient, driver by occupation, alcoholic and non-smoker presented to out patients department with complaints of neck swelling for past 1year. **Dysphagia** over a period of 1week. **Dyspnoea** and **pain** over swelling for past 2days. Swelling was insidious in onset, initially small in size (3x3cms), gradually progressed to present size (12x8cms). He underwent two aspiration outside before coming to hospital. After second aspiration he gives history of sudden increase in size of swelling with **dysphagia** gradually over a period of 1week and **dyspnoea**, pain of acute onset. Dull aching **pain** started after aspiration. No history of fever. There was no history of similar complain in past, no history of similar complaints in family.

Local examination: On inspection a diffuse swelling was present in left anterior triangle of neck, extending up to midline. Oval shaped with smooth surface, skin over the swelling was red and erythematous, edges of swelling were indistinct, no visible pulsation over swelling and movement with deglutination was present. Lower border was visible. On palpation swelling was tender with local rise of temperature, cystic in consistency and other inspectory findings were confirmed. No retrosternal extension.



PATIENT LEFT LATERAL VIEW SHOWING NECK SWELLING

Considering the sudden increase in size of cyst causing **dyspnoea** and **dysphagia** we planned for aspiration under ultrasound guidance before surgery. Fluid was thick brownish colour causing difficulty in aspiration. Approx 80ml of fluid aspirated and sent for analysis.

On investigation: X ray neck showed gross deviation of trachea to the right and FNAC reported (?) **infected colloid cyst**. Aspirated fluid culture shows no growth, On CT scan there was large enhancing fairly thick walled cystic lesion containing small air pocket. Thyroid function test showed euthyroid state.

We proceeded with hemithyroidectomy. During surgery we found complete involvement of left lobe and isthmus. Histopathology reported **infected colloid cyst.** Report confirmed infected colloid cyst.

Postoperative follow up of 3 month till now uneventfull.

REVIEW OF LITERATURE:

There are wide range of study and trial conducted to treat thyroid cyst. Here we are discussing different modalities of treatment and their outcome.

- K.David McCowen et al studied "the role of thyroid therapy in patient with thyroid cyst" They concluded that thyroxine therapy is not effective in preventing the recurrence of benign thyroid cyst after initial aspiration.[3]
- W. Howel et al reported a case of "giant thyroid cyst" containing 1200 ml of clear fluid. They treated successfully by aspiration.[4]
- Edith T. de los Santos et al conducted the study on "cystic thyroid nodule – dilemma for malignancy" the malignant cyst can be diagnosed by FNAC. They concluded that 4% were simple cyst, 82% were colloid nodule, 14% were malignant cysts and most cysts are not abolished by aspiration should be surgically excised.[5]
- F Monzani et al conducted study on "Percutaneous aspiration and ethanol sclerotherapy for thyroid cysts" they concluded that Percutaneous ethanol injection may prove a safe and effective tool for the therapy of thyroid cysts.[6]

- Mohammad Hassan Bastanhagh et al reported the case of "hydatid cyst presenting as a thyroid nodule" they concluded that FNAC should be avoided if hydatid cyst is suspected as there are the chances of anaphylaxis.[7]
- Cumali Gökçe et al diagnosed the "Hydatid Cyst of Thyroid Gland by Fine-Needle Aspiration Biopsy" Subtotal thyroidectomy was carried out and histopathologic examination confirmed the diagnosis. During aspiration biopsy, the patient did not present a clinical picture of anaphylactic reaction.[8]
- Catherine j. et al reported an "Epithelial cyst of thyroid" the Water clear fluid was repeatedly aspirated; analysis indicated the absence of parathyroid hormone (PTH), T3, and T4. Hemithyroidectomy revealed a simple epithelial cyst.[9]
- Abdulfattah Alejmi et al reported a case of "Multiple thyroid cysts as an extra-renal manifestation of ADPKD" diagnosis is confirmed by ultrasound and FNAC.[10]
- Rehan masood et al reported a "case of **infected thyroid cyst** due to gas forming organism" Emergency subtotal thyroidectomy was done to relive his respiratory distress.[11]
- S P Kanotra et al done a study on "Non-surgical management of benign thyroid cysts, - use of ultrasound-guided ethanol ablation" they concluded that Ultrasound guided ethanol ablation is a safe, highly effective.[12]
- Bhamidipati et al reported a case of "cystic metastasis of papillary thyroid carcinoma mimicking a primary mediastinal cyst"[13]
- Mohamad irfan et al reported a case of "unusual presentation of a solitary thyroid cyst" with right vocal cord palsy due to compression of thyroid cyst. Patient regained his normal vocal cord function 6 months after lobectomy.[14]

DISCUSSION:

Solitary thyroid nodule presented in 4% of individual and among these 30% are cystic. These thyroid cyst commonly result from degenerating thyroid adenoma (82%), and few are simple cyst. Most of the cystic nodule are benign only 15% among them are malignant.[2] Pain is an unusual symptom and is due to intrathyroidal haemorrhage.[1] Malignant thyroid cyst present with hoarseness of voice due to involvement of recurrent laryngeal nerve. A mass may be solid, cystic, or variable in consistency. Benign cysts <4cm can be treated successfully by aspiration. The aspirated fluid is usually clear yellow or bloody, with high levels of thyroid hormones. Benign cysts >4cm can be treated successfully by hemithyroidectomy.[2] A true cyst has a very low risk of malignancy. However, the presence of a cyst does not exclude neoplasia. Hydatid cysts of thyroid present with solitary nodule or multiloculated cysts. Hydatid cyst can be treated successfully by hemithyroidectomy followed by albendazole 400mg for 2month daily.[2]

Here we are reporting an infected thyroid cyst(huge) with pressure symptom. Multiple aspiration may be the cause for infection. Sudden increase in size of swelling is the possible cause for pressure symptom. Pain possibly due to intrathyroidal bleeding. Fluid culture shows no growth possibly due to antibiotic therapy. To relief his pressure symptom emergency aspiration was done. Finally patient underwent elective hemithyroidectomy.

CONCLUSION:

This was an unusual presentation of thyroid cyst i.e. infected colloid cyst with pressure symptom. The definitive treatment should be hemithyroidectomy.

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