



Sub acute thyroiditis - a case report

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ARTICLE HISTORY

Received: 12.03.2020

Accepted: 22.06.2020

Available online: 30.06.2020

Keywords:

sub acute thyroiditis, thyromegaly, antibody test, viral inflammatory, vascularity

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ABSTRACT

Sub acute thyroiditis is a rare disorder of thyroid gland due to viral infection or post viral inflammatory process. It is commonly associated with pain that radiate to different locations in the thyroid gland with tenderness over the neck. A case of sub acute thyroiditis was diagnosed in 40year old male patient who presented with c/o fever since 3 weeks, pain in front of neck radiating to jaw and ear. He had no comorbidities, serological reports were negative for widal, malaria, hepatitis and leptospirosis. On admission he was febrile. On general examination he was conscious and oriented with increased redness and mild tenderness over thyroid region. Ultrasound revealed normal echo pattern of the entire organ. Thyroid function test showed elevated T3 (295 MIU/ML), T4 (21.75 MIU/ML), and low TSH (0.001 MIU/ML) but thyroid antibody test was negative. Liver enzymes were elevated. SGOT(45 IU/L)and SGPT (77 IU/L). Thyroid SCINTI imaging revealed GRADE II Thyromegaly with significantly reduced follicular concentration in both lobes of thyroid with increased vascularity .He was treated pharmacologically with antibiotics, antipyretics, analgesics, steroid, propranolol and ursodeoxycholic acid.

INTRODUCTION

Sub acute thyroiditis is a rare disorder of thyroid gland and it is also known in other names like sub acute nonsuppurative thyroiditis, giant cell thyroiditis, painful thyroiditis and de quervains thyroiditis and it is self limited which presents with neck pain , usually accompanied by systemic symptoms [1]. It has an incidence of 12 cases in one lakh with a female preponderance during middle age (35%) [2]. It is caused by a viral infection or a post viral inflammatory process and it was thought to have a seasonal incidence higher in summer [3]. Clusters of cases were reported in association with coxsackievirus, mumps, measles, adenovirus and other viral infections [4].Thyroid autoimmunity does not appear to play a primary role in the disorder and it is strongly associated with human leukocyte antigen (HLA)-B35 [5]. The thyroid inflammation damages the follicles of thyroid gland and leads to proteolysis of thyroglobulin and this results unregulated release of large amount of thyroxine (T4) and triiodothyronine (T3) into the circulation resulting in hyperthyroidism [1].

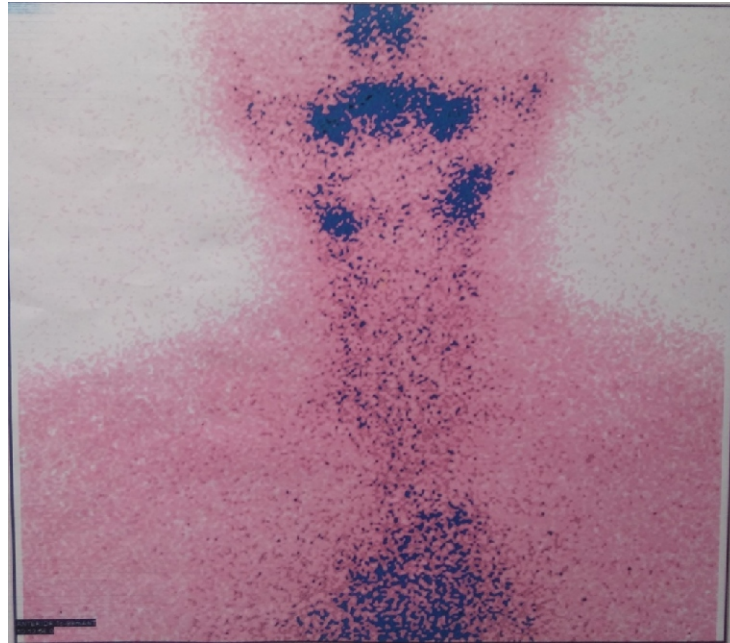
CASE REPORT

A 40 yr old male patient was presented with c/o fever since 3 weeks, pain in front of neck radiating to jaw and ear. He had no comorbidities, serological reports were negative for widal, malaria,

hepatitis and leptospirosis. On admission he was febrile. On general examination he was conscious and oriented with increased redness and mild tenderness over thyroid region. Ultrasound revealed normal echo pattern of the entire organ. Thyroid function test showed elevated T3 (295 MIU/ML), T4 (21.75 MIU/ML), and low TSH (0.001 MIU/ML) but thyroid antibody test was negative. Liver enzymes were elevated. SGOT (45 IU/L) and SGPT (77 IU/L).

Thyroid SCINTI imaging revealed GRADE II Thyromegaly with significantly reduced follicular concentration in both lobes of thyroid with increased vascularity. He was treated pharmacologically with IV Cefoperazone sulbactam 1.5 g BD , Tab. Propranolol 10mg BD, Tab Ursodeoxycholic acid 300mg BD , INJ . Paracetamol 1 g stat, Tab Aspirin 325mg QID and Tab Methyl prednisolone 4 mg and after treatment he was improved symptomatically.

Sub acute thyroiditis is characterized by generally self limiting and the peak incidence occurs at 30-50 years of age and women are affected five times more frequently than men, in this case it was diagnosed in a male patient. He had several features that are commonly observed in sub acute thyroiditis such as neck pain, fever with elevated T3 and T4 with low TSH and he responded well to the standard treatment.

**Findings:**

1. Grade II global thyromegaly with significantly reduced follicular concentration in both right and left lobes of thyroid.
2. Global thyroid vascularity is augmented
3. Parotid thyroid ratio is parotid preference.
4. Findings are consistent with viral Sub Acute Thyroiditis resulting in Tender thyromegaly, thyrotoxicosis and episodic fever.

DIAGNOSIS : SUB ACUTE THYROIDITIS

Fig. 1 : THYROID SCINTI IMAGING REPORT

DISCUSSION

Sub acute thyroiditis (sub acute granulomatous thyroiditis) is characterized by neck pain or discomfort, a tender diffuse goiter, and a predictable course of thyroid function evolution. Hyperthyroidism is typically the presentation followed by euthyroidism, hypothyroidism, and ultimately restoration of normal thyroid function [2]. The thyroid is usually moderately enlarged in subacute thyroiditis, in some cases the pain is severe that the patient cannot tolerate palpation of the neck, both the thyroid lobes are involved from the beginning in most patients but the pain, tenderness and enlargement can be unilateral or start on one side and later to the other side days or even week are called creeping thyroiditis [6] biochemical evidence of hyperthyroidism with high serum free T4 and T3 and low serum TSH concentrations during the early stage of illness, these parameters should be tested in all patients in whom there is a clinical suspicion of sub acute thyroiditis, Erythrocyte sedimentation rate or C-reactive protein level can also be obtained [7]. Treatment should be directed at providing relief for thyroid pain and tenderness and for symptoms of hyperthyroidism; anti-inflammatory drugs like NSAID or prednisolone can be given [8]. In this case the patient is presented with similar features of subacute thyroiditis with complaints of pain and tenderness over the region of neck, fever and elevated thyroid function test.

CONCLUSION

The occurrence of Sub acute thyroiditis is an extremely rare case in male patients and here we report a case of sub acute thyroiditis in a 40 year old male patient with pain and tenderness over the region of neck. He was managed pharmacologically with IV antibiotics, analgesics, beta blocker and steroids.

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