

A rare cause of pain and swelling in neck: thyroid abscess

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Introduction: Thyroid abscess is a rare condition because thyroid gland is relatively resistant to infections due to its rich blood supply, capsule formation and high iodine content. Here, we report thyroid abscess development in an immunocompetent patient presenting with pain, swelling, erythema and induration in right side of anterior neck

Case report: A 35 years old woman applied to our clinic with sore throat for 8 days accompanied by fever, difficulty in swallowing and swelling in right part of neck in the last 2 days (Figure 1). She was using amoxicillin clavulanate 2x1000 mg for 1 week. She did not have any systemic disease, chronic drug use or history of trauma to neck region. Her body mass index was 20.9 kg/m², pulse 94/min, blood pressure 110/70 mmHg and fever 38.2°C. In physical examination, there was a 4x4 cm tender, hard, warm and erythematous lesion in right part of the neck. Laboratory examination revealed a sedimentation rate of 83 mm, C-reactive protein 93.7 mg/l (0-5), thyrotrophin (TSH) 0.38 mUI/ml (0.27-4.2), fT3 3.12 pg/ml (1.8-4.6), fT4 1.83 ng/dl (0.9-1.7) and negative antithyroid antibodies. In neck ultrasonography (US), a hypoechoic area of 13.4x16.5x17.5 mm in right thyroid lobe was detected. Additionally, a 26.5x42.3x46.7 mm heterogenous isohypoechoic lesion with irregular margins and septas in right neck was connected to the lesion in thyroid (Figure 2A). Neck computerized tomography revealed a 4x2 cm lesion extending to the right thyroid gland in soft tissue of right anterior neck which was described as an abscess (Figure 2B). The lesion was not in contact with deep fascia and retropharyngeal area. Diagnostic and therapeutic aspiration was performed but only 2 cc material could be obtained. Gram positive cocci and bacil were observed in smears, however culture was negative probably due to obtaining the sample while the patient was on antibiotic therapy. Intravenous sulbactam ampicillin 4x2 gr was started. TORCH, hepatitis and EBV serologies were negative and echocardiography for infective endocarditis showed no abnormality. In Tc-99m scintigraphy performed to exclude an underlying subacute thyroiditis, right lobe was hyperplastic with a hypoactive area in middle-inferior part, and left lobe was partially suppressed. Thyroid functions at first and third weeks of admission were normal. Sedimentation rate was 26 mm, CRP was <3.2 mg/dl and a prominent decrease in size was observed at the 21th day of treatment. She received IV antibiotic therapy for 6 weeks and oral antibiotic for an additional 2 weeks

Conclusions: Although, pain and swelling in thyroid region might be suggestive for subacute thyroiditis at first glance, thyroid abscess which has a mortality of 20-25% when left untreated should always be kept in mind. Identical clinical findings and concomitant mild thyroid dysfunctions in patients with thyroid abscess might cause misdiagnosis as subacute thyroiditis and delay in treatment.

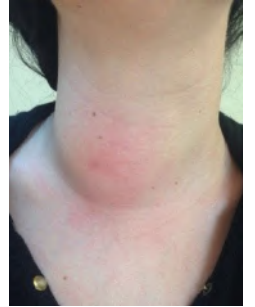


Figure 1: Swelling, erythema and induration in right part of the neck

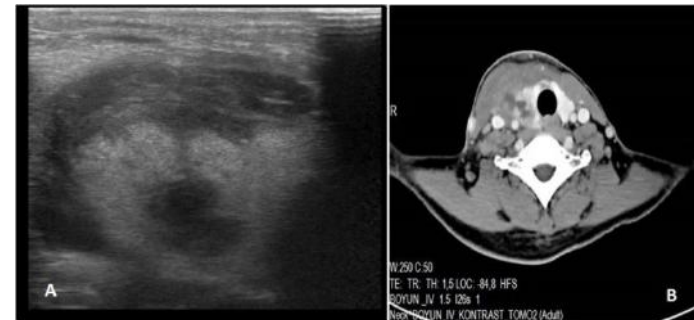


Figure 2: A. Intrathyroidal abscess and extension to the neck in ultrasonography B: Abscess in right thyroid lobe and right cervical region in computerized tomography