

**BRIEF REPORT / KISA RAPOR**

## **A rare condition in the differential diagnosis of hard, fixed neck masses: Elongated transverse process of atlas**

### ***Sert, fikse boyun kitlelerinin ayırıcı tanısında nadir bir durum: Atlasın elonge transvers çıkıntısı***

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#### **ABSTRACT**

Twenty eight years old female patient presents with 1 cm in diameter, hard and painless swelling in the left side of the neck. On physical examination; 1 cm in size, rigid, painless and fixed mass was detected in the left retromandibular area. Cervical computerized tomography (CT) scan was performed. The elongation of left transverse process of atlas giving misleadingly the impression of a neck mass was observed in CT scan. In the literature, the elongation of transverse process of the seventh cervical vertebra is common but clinical conditions depending on the elongation of transverse process of atlas is very rare. Surgical intervention was not considered because the patient does not have any complaint other than palpable mass. As in this case, elongated transverse process vertebra (atlas) as a rare condition must be kept in mind in the differential diagnosis of rigid and fixed neck masses. J Clin Exp Invest 2015; 6 (1): 59-60.

**Key words:** Transverse process, atlas, neck mass

#### **PATIENT REPORT**

Twenty eight years old female patient presents with 1 cm in diameter, hard and painless swelling in the left side of the neck. There was no known history of disease. On physical examination; 1 cm in size, rigid, painless and fixed mass was detected in the left retromandibular area. Oral examination, anterior rhinoscopic examination, endoscopic examination of the nasopharynx and indirect endoscopic laryngeal examination were normal. Magnetic resonance imaging (MRI) was performed for the differential diagnosis. After the failure to visualize the soft tissue mass in MRI and following recommendations of radiologist, cervical Computerized Tomography (CT) scan was performed. The elongation of left trans-

#### **ÖZET**

Yirmi sekiz yaşında kadın hasta boynunun sol tarafında 1 cm çapında sert, ağrısız, şişlik şikayeti ile başvurdu. Yapılan fizik muayenede sol retromandibuler bölgede 1 cm boyutunda, sert, ağrısız ve fikse kitle tespit edildi. Servikal bilgisayarlı tomografi (BT) tetkiki yapıldı. Bilgisayarlı tomografide boyun kitlesi taklit eden, atlas sol transvers prosesi'nin elongasyonu tespit edildi. Literatürde, yedinci servikal vertebra, transvers prosesi'nin elongasyonu yaygındır fakat atlas transvers prosesi'nin elongasyonuna bağlı klinik durumlar çok nadirdir. Hastanın palpabl kitle dışında herhangi bir şikayeti olmadığı için cerrahi müdahale düşünülmeydi. Nadir bir durum olan vertebra (atlas) transvers process elongasyonu, sert ve fikse boyun kitlelerinin ayırıcı tanısında akılda tutulmalıdır.

**Anahtar kelimeler:** Transvers çıkıntı, atlas, boyun kitlesi

verse process of atlas giving misleadingly the impression of a neck mass was observed in CT scan (Figure 1). In the literature, the elongation of transverse process of the seventh cervical vertebra is common [1]. Vascular and neurogenic thoracic outlet syndrome can occur as a result of this condition. Clinical conditions depending on the elongation of transverse process of atlas is very rare [2]. Many anomalies of atlas can be seen within the syndrome or separately. The anomalies such as dysmorphic dens, vertebral intersegmental fusion, spinal canal stenosis, atlanto-axial segmental instability and C2-C3 fusion anomalies have been identified in the literature [2]. These anomalies can cause limitation of cervical motion abnormalities, torticollis, neck

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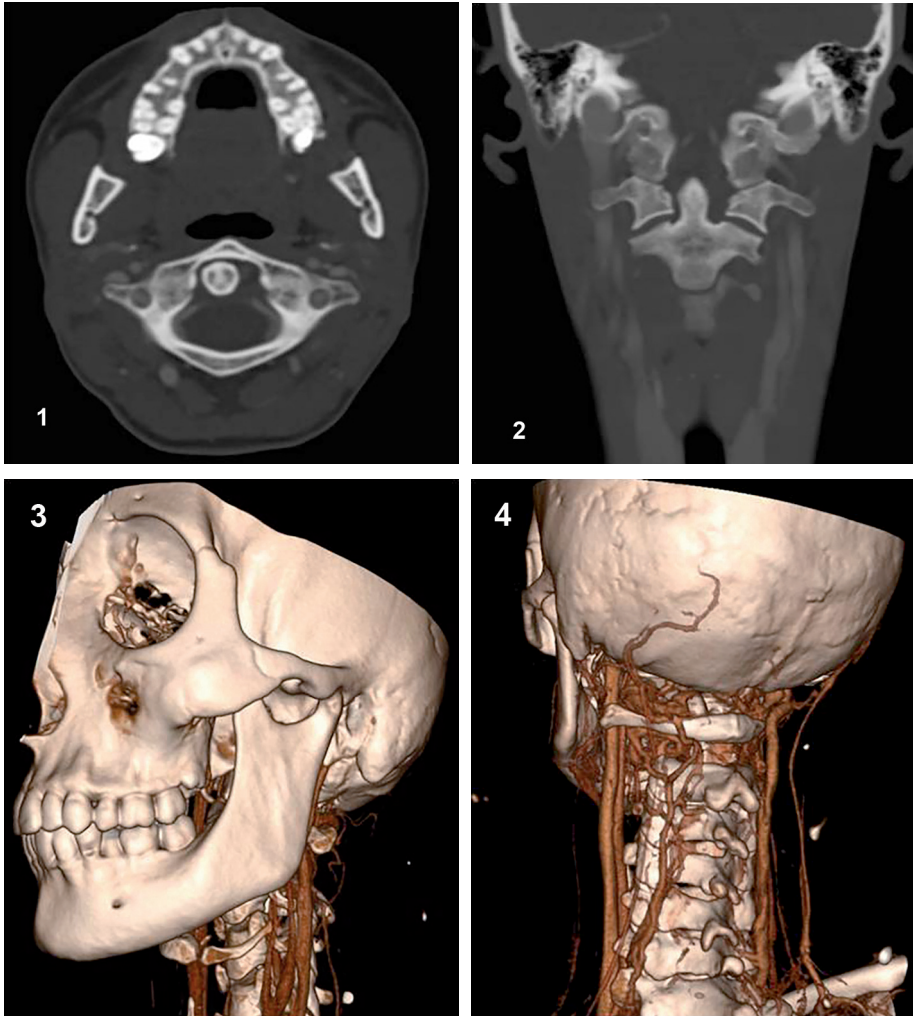
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pain and neurological problems. It can be accompanied by syndromic conditions such as Klippel-Feil, Russell-Silver, Down syndrome and VATER in children [3-5]. The data that could suggest syndromic abnormalities was not detected in our case. In the literature, the elongation of transverse process of fifth lumbar vertebrae which is incidentally detected during the surgery of disc herniation is described

and this condition is considered to depend on the calcification of ligaments that is attached to transverse process [6]. Surgical intervention was not considered because the patient does not have any complaint other than palpable mass. As in this case, elongated transverse process vertebra (atlas) as a rare condition must be kept in mind in the differential diagnosis of rigid and fixed neck masses.



**Fig.1** CT shows the left transverse process elongation of C1 vertebra on atlas (1) and coronal reformate (2) sections and 3D reformate images (3,4)

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