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A Screening cause in patients with carpal tunnel syndrome: Acromegaly

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Abstract
Acromegaly is a chronic disease caused by excessive growth hormone (GH) release from an adenoma originating from the somatotroph cells of the pituitary gland (>95%). The mean age at diagnosis ranges from 40–47 years, with a prevalence of 28–137 per million, with an incidence of 2–11 cases / year. Community studies have shown that the most common finding in acromegalic patients is acral growth (78–85%) and percentage roughening (70%). Headache, macroglossia, increased sweating, arthralgia, skin thickening, snoring, fatigue and carpal tunnel syndrome (CTS) are other common findings. Clinical signs and symptoms are important in these patients with late diagnosis. Since CTS is seen frequently in the community, it is recommended to measure insulin-like growth factor 1 (IGF-1) in these cases. Thus, we think that these patients should be screened for acromegaly. We wanted to explain this situation with a short statement.

Keywords: acromegaly, carpal tunnel syndrome, screening, clinic, median nerve, surgery, endocrinology

Introduction
Acromegaly is a chronic endocrine disease progressing with disproportionate skeleton, tissue and organ growth. Its etiology generally involves excessive secretion of BH from pituitary-derived somatotrope cells. The incidence is equal in men and women. An average of 40-50 years of age is diagnosed and can be diagnosed a few years after its onset [1].

Clinical signs and symptoms are very diverse in acromegaly. The most common acral and soft tissues are vaccine enlargement, night sweats, facial swelling, joint pain, diabetes mellitus, hypertension, ischemic cardiovascular diseases. CTS is also a very common finding in this disease. Joint atropathy can also occur in 80% of patients during diagnosis. There is a direct relationship between the inhibition of over-secreted BiH and the mortality rate of patients with acromegaly. Cardiovascular diseases are among the most common causes of death in patients with acromegaly. These patients may also be accompanied by respiratory system diseases and neoplasms. In screening, IGF-1 level is generally examined. Surgery, medical therapy and radiotherapy are among the treatment options, and transsphenoidal surgery is the first treatment option [2, 3].

Diseases such as rheumatoid arthritis, diabetes mellitus, hypothyroidism, amyloidosis, acromegaly are among the main causes. The diagnosis is delayed due to the atypical symptoms in CTS [4, 5]. There are cases with CTS very frequently in the society and the etiology is often overlooked. Baum H *et al*. showed that in 32 (64%) of 50 patients diagnosed with acromegaly, they found CTS clinical symptoms [6]. Pelin O *et al*. found CTS in 81% of patients diagnosed with acromegaly in a study showing the frequency of CTS in diabetes mellitus, hypothyroidism and acromegaly diseases [7]. Sasgawa *et al*. In 34.9% of 21 patients diagnosed with acromegaly, cases with CTS were detected, and they tried to explain the pathophysiology by evaluating the median nerve with magnetic resonance imaging [8]. Kameyama S *et al*. He performed a median nerve conduction study in 16 patients with asymptomatic CTS with acromegaly [9]. CTS is common in patients diagnosed with acromegaly, and surgical intervention is frequently performed before the diagnosis of the current disease. Early diagnosis and treatment is important in preventing complications. However, today this situation is often overlooked.

Conclusion
Acromegaly is a disease that is difficult to diagnose in the early period. Most cases with CTS from acromegaly have a history of operation. In the differential diagnosis of the etiology of CTS cases, it is extremely important to keep in mind acromegaly in terms of prognosis. However, this situation is often overlooked. Therefore, screening of patients with CTS in terms of acromegaly will have an important place in the early diagnosis and treatment of this disease.

References
1. Kashyap RR, Babu GS, Shetty SR. Dental patient with acromegaly: a case report. J Oral Sci, 2011; 53:133-6.
2. Lima DL, Montenegro RM Jr, Vieira AP, Albano MF, Rego DM. Absence of periodontitis in acromegalic patients. Clin Oral Investig, 2009; 13:165-9.
3. Melmed S. Acromegaly pathogenesis and treatment. J Clin Investm, 2009; 119:3189-202.
4. Chanson P, Salenave S. Acromegaly. Orphanet J Rare Dis, 2008; 25:3-17.
5. Karaalioglu O, Yesil Duymus Z. Prosthetic restoration of a patient with acromegaly- a case report. Atatürk Üniv Diş Hek Fak Derg, 2009; 19:41-6.
6. Baum H, Lüdecke DK, Herrmann HD. "Carpal tunnel syndrome and acromegaly."Acta neurochirurgica. 1986; 83(1-2):54-55.
7. Oktayoglu Pelin, *et al*. "Assessment of the presence of carpal tunnel syndrome in patients with diabetes mellitus, hypothyroidism and acromegaly."Journal of clinical and diagnostic research: JCDR. 2015;

9(6):OC14.
8. Sasagawa Yasuo, *et al*. "Median nerve conduction studies and wrist magnetic resonance imaging in acromegalic patients with carpal tunnel syndrome."Pituitary. 2015; 18(5):695-700.
9. Kameyama Shigeki, *et al*. "Subclinical carpal tunnel syndrome in acromegaly. "Neurologia medico-chirurgica. 1993; 33(8):547-551.