

Berna EVRANOS OGMEN¹, Sefika Burcak POLAT², Fatma Neslihan CUHACI², Cevdet AYDIN¹,
Reyhane ERSOY¹ and Bekir ÇAKIR¹

¹Yıldırım Beyazıt University, Faculty of Medicine, Department of Endocrinology and Metabolism, Ankara, TURKEY
²Ataturk Education and Research Hospital, Department of Endocrinology and Metabolism, Ankara, TURKEY

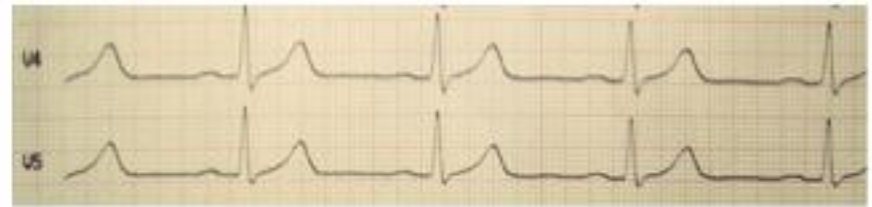
CASE

- A 63-years-old acromegalic woman admitted to our hospital for lassitude and dizziness.
- She has been diagnosed acromegaly ten years ago and had two transsphenoidal operations.
- Since remission has not achieved she started to use Lanreotide (somatostatin analogue) and for seven years she has been treated with it.
- Laboratory examination revealed that, basal plasma growth hormone (GH) level 1.21 ng/mL (normal range:0-5); nadir GH level after glucose tolerance test 1.2 ng/mL (normal range: less than 1); insulin-like growth factor-1 (IGF-1), 129.1 ng/mL (normal range: for age: 75-212); thyroid stimulating hormone (TSH), 0.824 uIU /mL (normal range: 0.27-4.2); free thyroxine (fT4), 1.26 ng/dL (normal range: 0.9-1.7); and prolactin, 6.66 ng/mL (normal range in women: 0-20).
- Magnetic resonance imaging (MRI) of pituitary gland with gadolinium contrast revealed a pituitary microadenoma.
- Since routine resting electrocardiograms of patient showed bradycardia (46 bpm) and supraventricular extrasystoles, lanreotide treatment stopped. After then patient's symptoms relieved and heart rate increased (64 bpm).

Picture 1. ECG of patient using lanreotide



Picture 2. ECG of patient after lanreotide cessation



CONCLUSION

- Somatostatin is a peptide hormone with a short half-life (2-3 min), which is synthesized in multiple tissues, including the hypothalamus, to inhibit GH secretion.
- Somatostatin analogues (Octreotide and Lanreotide) are indicated principally for the treatment of acromegaly that remains active after transsphenoidal surgery, whether or not the patient has also undergone radiotherapy.
- Octreotide-induced bradycardia has previously been reported as an unusual finding in different clinical situations (nonacromegalic patients) and a male patient with acromegaly. A rat study shows bilateral microinjection into the rostral ventrolateral medulla of either somatostatin or the receptor-selective agonist lanreotide evoked dramatic, dose-dependent sympathoinhibition, hypotension, and bradycardia.
- Our case is the first reported patient with acromegaly who had bradycardia and supraventricular extrasystoles associated with use of Lanreotide.