Acromegaly: A Case Study

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Abstract

A 35 year old BHEL field worker presented with increased shoe size and tightness of ring, change in facial appearance, voice change, tingling and numbness in hands and snoring since 6 months. On examination his BP was 160/100, elongated head, prominent supra orbital ridges, Enlarged nose, lips, ears, widely spaced teeth, husky voice. Nape of neck was hyper pigmented. His systemic examination (including visual perimetry) was unremarkable. His Lab investigations were GH: 29.8 (0-3NG/ML), IGF: 811 (115-307 ng/mL). T3/T4/TSH/HBA1C/FBS/PLBS/Cortisol/ Prolactin-were within normal limits. USG Abdomen and Pelvis: Non obstructive left renal calculi (7 mm), borderline prostatomegaly, 2D-Echo-EF-60%, minimal septal hypertrophy. MRI brain showed pituitary adenoma. Treatment options for acromegaly were discussed with the patient. Patient was started on somatostatin analogue and referred to neurosurgery team for further management.

Keywords: Prostatomegaly; Acromegaly; Somatostatin analogue; Endocrine disorders

Discussion

A 35 year old field worker (BHEL) married and having 3 children, presented with symptoms of increased shoe size from 8-10 Inches and tightness of ring of ringfinger, facial changes, change of voice, numbness and tingling sensation in hands, snoring since 6 months. No history of OSA/excessive sweating/joint pains/muscle pains/ erectile dysfunction (Figure 1). No significant past or family history of endocrine disorders. On examination of elongated head, prominent supraorbital ridges, enlarged nose, lips, ear, separated teeth, husky voice, nape of neck-hyper pigmented. Temp: 37°C, BP-160/100, pulse 80/min regular [1]. Height 66 inches, foot 10 inches, hands 7.5 inches (Figure 2A-2H). Systemic examination (including visual perimetry) no abnormality detected.

Lab Investigations

GH: 29.8 (0-3 ng/mL)
Elevated IGF-1: 811 (115-307 ng/mL)
T3/T4/TSH/HBA1C/FBS/PLBS/Cortisol/Prolactin were within normal limits.
X-ray was taken for hands, ankle and skull (Figures 3-5).
USG abdomen and pelvis: on obstructive left renal calculus (7 mm), borderline prostatomegaly 2D-Echo-EF-60%, Minimal septal hypertrophy (Figure 6). Patient was started on Somatostatin analogue and referred to neurosurgery team for further surgical management.

Figure 1: Patient examination before one month.

Figure 2: Patient examination after 1 month.
Acromegaly Review

This is due to GH from pituitary tumour or hyperplasia e.g. via GHRH from carcinoid tumor. It usually occurs after fusion of epiphysis [2].

Clinical features are acroparesthesia, amenorrhea, libido, headache, increased swelling, snoring, arthralgias, and backache.

Patients may have prominent supraorbital and nuchal ridges, exaggerated wrinkles with thickened facial features. They may be hirsute with greasy skin [3].

A diagnosis is by basal serum GH ± IGF-1 and OGTT with GH measure mrd MRI pituitary fossa, visual fields, ECG, 2Decho may be needed.

Transphenoidal surgery is first line of treatment. Drugs (e.g. somatostatin analogues, GH antagonists), Radiotherapy are alternatives.

References