Recognizing the Diverse Manifestations of Acromegaly

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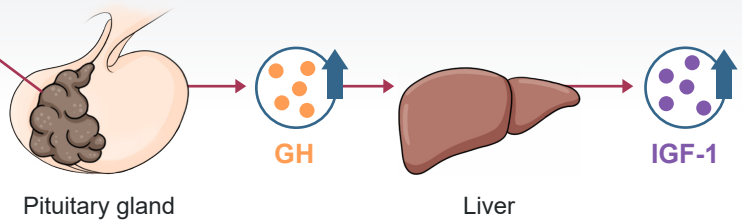
Cause of acromegaly:

95% of cases caused by chronic hypersecretion of growth hormone (GH) from a pituitary adenoma, which leads to increased insulin-like growth factor 1 (IGF-1) levels[1]



Epidemiology:

Women and men equally affected[2] ♀ ♂

Incidence
2–11
cases per million per year[2]

Prevalence
28–137
cases per million[2]

Patients with acromegaly exhibit diverse clinical manifestations[3]

- Carpal tunnel syndrome[4]
- Colorectal cancer[5]
- Enlarged feet[3]
- Enlarged hands[3]
- Fatigue[3]
- Frontal bossing, prognathism, enlarged nose, lips, tongue[3,6]
- Headache[3,4]
- Hypertension[4]
- Joint pain[4]
- Metabolic disorders, including type 2 diabetes[4]
- Sexual dysfunction[3]
- Sleep apnea and respiratory disease[3,4]
- Stroke[7]

Changes in facial features occur slowly, making them easy to miss

This broad range of manifestations[8] and similarity to common conditions,[3] makes diagnosis challenging and can lead to a mean delay in diagnosis of ~10–11 years[9]

Patients often don't feel like themselves and notice changes in their physical features, prompting them to seek medical attention[8]

Patients may visit different medical specialists before diagnosis[3]

Average number of physicians consulted before diagnosis[10] **3.4**

A patient reporting changes in shoe or ring size, fatigue, and sleep apnea, could be indicative of acromegaly.[8]

Gradual physical changes[6] and slow development of clinical signs[3]

Prolonged exposure to excess GH and IGF-1 is associated with significant co-morbidity, increased mortality and impaired health-related quality of life[11]

Mortality in uncontrolled acromegaly is **2x** higher than the general population[5]

Normalizing GH and IGF-1 levels is associated with reduced mortality[12]

Early diagnosis and treatment can prevent many irreversible comorbidities,[13] but when left untreated acromegaly may lead to premature death[14]

To reduce comorbidities and mortality associated with acromegaly, early diagnosis and prompt treatment are needed.[4]

GH, growth hormone; IGF-1, insulin-like growth factor.

1. Katznelson L et al. *J Clin Endocrinol Metab.* 2014;99:3933-3951. **2.** Lavrentaki A et al. *Pituitary.* 2017;20:4-9. **3.** Caron P et al. *Endocrine.* 2019;63:120-129. **4.** Ershadinia N, Tritos NA. *Mayo Clin Proc.* 2022;97(2):333-346. **5.** Bolfi F et al. *Eur J Endocrinol.* 2018;179:59-71. **6.** Boguszewski CL. *Eur J Endocrinol.* 2020;183(1):C1-C4. **7.** Osorio RC et al. *Front Endocrinol (Lausanne).* 2022;13:1064216. **8.** Colao A et al. *Nat Rev Dis Primers.* 2019;5(1):20. **9.** Zahr R, Fleseriu M. *Eur Endocrinol.* 2018;14(2):57-61. **10.** Kreitschmann-Andermahr I et al. *Pituitary.* 2016;19(3):268-276. **11.** Chiloiro S et al. *Pituitary.* 2022;25(6):831-841. **12.** Melmed S et al. *Nat Rev Endocrinol.* 2018;14(9):552-561. **13.** Celik D et al. *Pak J Med Sci.* 2021;37(4):1161-1165. **14.** Albarel F et al. *J Endocr Soc.* 2022;6(9):bvac114.