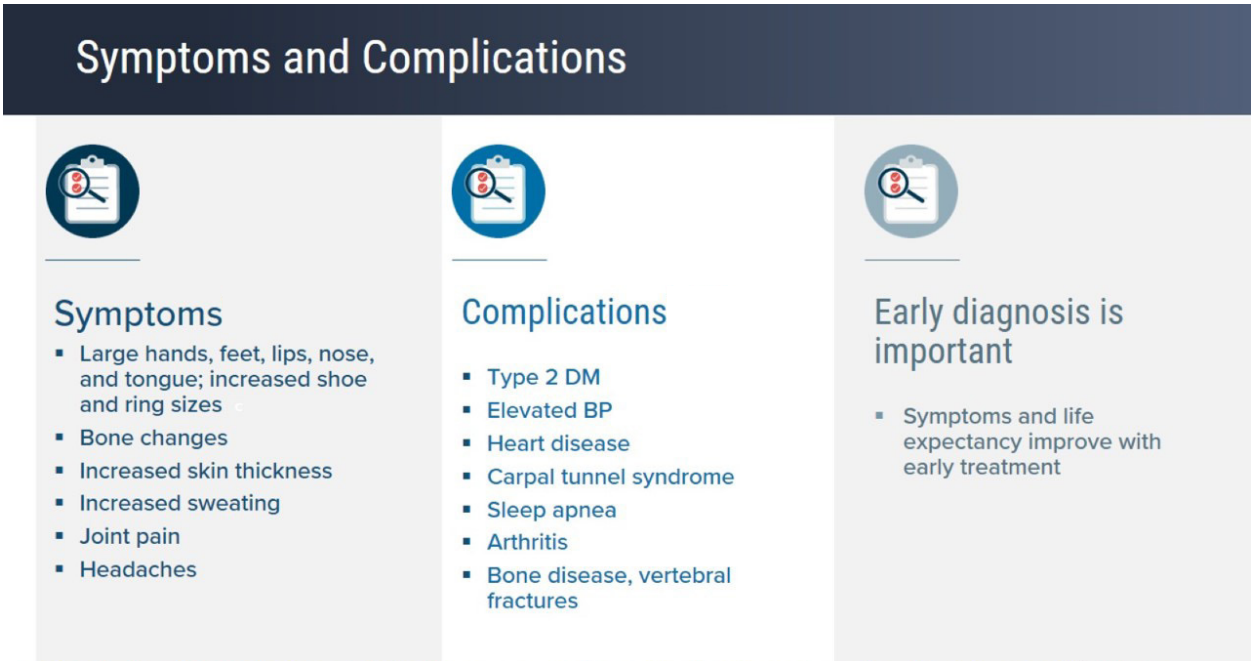
Medscape EDUCATION

The Changing Landscape in Acromegaly: Dissecting Guideline Updates for Improved Patient Care

THE BASICS

- Most patients with acromegaly have a benign pituitary tumor that is secreting extra growth hormone. Both growth hormone and insulin-like growth factor 1 (IGF-1) are high.
- In very rare cases, other types of tumors release excess growth hormone.
- In the United States, the incidence is approximately 3000 new cases per year. The prevalence is anywhere between 3 and 14 per 100,000 people, and it increases with age.
- Acromegaly is a chronic, rare disease; the onset can be gradual and subtle; and the diagnosis can take years.

Figure



BP = blood pressure; DM = diabetes mellitus

UPDATED ACROMEGALY GUIDELINES

Updated acromegaly guidelines, published in 2021 ("A Pituitary Society update to acromegaly management guidelines"), utilized new information to provide direction for decision-making and clarify the place for recently approved therapies.

Comparing Guidelines: 2014 vs 2020

What Stayed the Same?[5,7]
Continued treatment of comorbidities
Colonoscopy screening at diagnosis and then typical screening routine
Surgery as first-line treatment by expert surgeons
Somatostatin-receptor ligands (SRLs) as mainstay of medical treatment
Irradiation as third-line treatment (stereotactic generally preferred)

What Changed? [5,7]	
Emphasis on vertebral fractures	• Vertebral fracture risk persists after biochemical remission • Use of bone-active agents, especially selective estrogen receptor modulators • Vertebral x-rays for diagnosis in addition to density studies
Pasireotide use: additional information	• Use in patients resistant to first-generation SRLs
Oral octreotide: new information	• Use in patients responding to injectable SRL
Pegvisomant: information from ACROSTUDY	• IGF-1 levels controlled in 72%; 6.8% had increase in pituitary tumor size • Given in combination with SRLs

Key Takeaways

Uncontrolled acromegaly[5,7]	• Associated with excess morbidity, mortality, and effects on quality of life
Presentation and outcomes[5,7]	• Might differ based on sex • Optimization of all complications needed
Surgery[5,7]	• First-line therapy for most patients in the United States • > 50% of patients will need adjuvant therapy • There are emerging data on postsurgery remission prediction factors
Octreotide and lanreotide[5,7]	• Most frequently used first-line medical acromegaly treatments • Indicated when surgery has failed or is not an option
Oral octreotide[5]	• Recently FDA approved • Improved symptom control and patient satisfaction in clinical trials
Dopamine agonists[7]	• Cabergoline might be used in very mild cases[7] • Can be added to SRLs
Pasireotide, pegvisomant, and/or combination medical therapy[5,7]	• Alternative therapeutic options for patients who do not achieve biochemical control • Pasireotide and pegvisomant can be used as first-line therapies in select patients
Predictive factors[5,7]	• Are important in tailoring the decision for individualized medical treatment for SRL response and adverse effects (eg, hyperglycemia to pasireotide)
Therapeutic approaches[5,7]	• Should be individually tailored to achieve optimal outcomes and improved quality of life
Patient-reported outcomes[5]	• Should be monitored in all patients with acromegaly

References

1. Broder MS, Chang E, Cherepanov D, et al. Incidence and prevalence of acromegaly in the United States: a claims-based analysis. *Endocr Pract*. 2016;22:1327-1335.
2. Ceccato F, Barbot M, Lizzul L, et al. Clinical presentation and management of acromegaly in elderly patients. *Hormones*. 2021;20:143-150.
3. Chanson P, Salenave S, Kamenicky P. Acromegaly. In: Handbook of Clinical *Neurology*. Elsevier; 2014;124:197-219.
4. Faglia G, Arosia M, Bazzoni N. Ectopic acromegaly. *Endocrinol Metab Clin North Am*. 1992;21:575-595.
5. Fleseriu M, Biller BM, Freda PU, et al. A Pituitary Society update to acromegaly management guidelines. *Pituitary*. 2021;24:1-13.
6. Gadelha MR, Kasuki L, Lim DS, et al. Systemic complications of acromegaly and the impact of the current treatment landscape: an update. *Endocr Rev*. 2019;40:268-332.
7. Katznelson L, Laws ER Jr, Melmed S, et al. Acromegaly: an Endocrine Society clinical practice guideline. *J Clin Endocrinol Metab*. 2014;99:3933-3951.
8. Lavrentaki A, Karavitaki N, Paluzzi A, et al. Epidemiology of acromegaly: review of population studies. *Pituitary*. 2017;20:4-9.
9. Mazziotti G, Maffezzoni F, Frara S, et al. Acromegalic osteopathy. *Pituitary*. 2017;20:63-69.
10. Melmed S. Acromegaly pathogenesis and treatment. *J Clin Invest*. 2009;119:3189-3202.
11. National Institute of Diabetes and Digestive and Kidney Diseases. Acromegaly. Last reviewed January 2020. Accessed May 17, 2021. https://www.niddk.nih.gov/health-information/endocrine-diseases/acromegaly

Independently developed by Medscape, LLC and funded by [Recordati Rare Diseases]