Acromegaly

Overview

• Definition
  » Acromegaly is a condition caused by overproduction of growth hormone from the anterior pituitary, usually by a pituitary tumor.
  » The condition results in overgrowth of skeletal, soft & connective tissues.
  » Pts usually have enlarged hands, feet, jaw & tongue.
  » Major organs including the heart, lungs, liver & kidney are also increased in size.
  » Airway anatomy is altered, including enlargement of the tongue & epiglottis, mandible hypertrophy & generalized soft tissue growth, which may make airway management difficult

• Usual Rx
  » Hypophysectomy (excision of the pituitary tumor)
  » The surgical approach usually taken is transsphenoidal; alternately, a bifrontal craniotomy approach can be taken.

Preop

Issues/Evaluation

• A thorough history & airway exam are required.

• If pt complains of dyspnea, hoarseness or stridor or has been recently diagnosed w/ sleep apnea, indicating a risk of airway obstruction w/ sedation or general anesthesia, consider an awake fiberoptic intubation.

• Pts w/ acromegaly may have glottic or subglottic stenosis, nasal turbinate enlargement, vocal cord thickening, or recurrent laryngeal nerve involvement.

• Evaluate pts for hypertension, hyperglycemia, congestive heart failure, peripheral nerve or artery entrapments, skeletal muscle weakness.
Intraop

• Be prepared for a difficult airway w/ several laryngoscope blades, laryngeal mask airways (LMA) & a fiberoptic bronchoscope as backup.

• Pts may need treatment of hypertension intraop, especially if a transsphenoidal procedure is performed, since the nasal septum is usually prepped w/ cocaine, epinephrine, or phenylephrine.

Postop

• Because pts are at risk of airway obstruction & may have difficult airways, make sure pt is fully awake & following commands before extubation.

• If pt has undergone a hypophysectomy as treatment for acromegaly, pituitary insufficiency may arise postop (eg, TSH, ACTH may be low).

Author

Betty Lee-Hoang, MD

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