Voice Disorders

Physiology of the voice:
- Vocal cords tighten for high pitch, loosen up for low pitch.
- The looser they are, the less frequent their vibrations.
- Everything else is controlled by the mouth and sinuses.
- Reinke’s Space is crucial!
  - Slight disturbance = major change in voice quality

External Laryngeal Nerve controls Pitch
Recurrent Laryngeal Nerve controls Tone
These can be damaged by -
- Cardiac, Thyroid, Mediastinal or Laryngeal surgery

HOARSENESS, croaking voice:
Major causes are:

ACUTE (sudden onset)
- Acute Reinke’s Oedema
  (like after a night of drinking and smoking)
- Viral Laryngitis
- Bile / Acid Reflux looks like diffuse redness around the cords

CHRONIC (insidious)
- Polyp due to
  - Excessive coughing
  - Violent intubation in ICU
- Granuloma (a chronically unhealing polyp)
- Squamous Carcinoma

OLD HOARSE MALE SMOKER:
CANCER UNTIL PROVEN OTHERWISE

YOUNG HOARSE FEMALE NON-SMOKER:
VIRAL LARYNGEAL PAPILLOMA
= vocal cord warts

Investigate with NASENDOSCOPY
(tube is passed through nasopharynx, strobe light is used to image the cords in motion.)

Management is usually SURGICAL for polyps, granulomae, SCCs.
- Polyps, papillomae + small cancers can be burnt off with a laser.
- Acute oedema, viral+ reflux laryngitis will resolve by themselves.

Functional Voice Disorders: no organic causes
Eg. The dry mouth of the public speaker:
- Anxiety causes adrenaline release
- Adrenaline causes muscles to tighten and mucosal membranes to dry up
- Hence, Reinke’s space becomes narrower and the vocal cords become tighter, thus the broken high-pitched voice of the defendant in court.
- This is known intuitively; people put glasses of water out for public speakers

Larynx SCC:
~3 months onset of hoarseness; Tumour is probably still small Rarely spreads to lymph nodes as the larynx is poorly drained.
Leukoplakia (hyper-keratosis) is the pre-malignant change

Put together by Alex Yartsev: Sorry if I used your images or data and forgot to reference you. Tell me who you are.
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