The Physician Learning Program, the Office of Lifelong Learning, and the ALS Multidisciplinary Clinic

Head Shoulders, Knees and Toes: Neurological Presentations and Serious Mimics

Pearls For Practice

Speech Change - Is It Always a Stroke?

Dr. Wendy Johnston & Dr. Caroline Jeffery

Speech content	Speech production		Swallowing
Dysphasia/ Aphasia	**Dysarthria**	**Dysphonia**	**Dysphagia**

• change in speech content and grammar
• quick screening tools: word finding difficulties, Verbal fluency (one minute list number of words beginning with F, animals)
	• loss of the ability to articulate words normally
	• jerky, staccato, breathy, irregular, imprecise, or monotonous
	• fatigability
	• types:
	  ◦ spastic
	  ◦ Flaccid
	  ◦ ataxic
	  ◦ hyperkinetic
	  ◦ hypokinetic,
	  ◦ mixed
	• quick screening tools: “mememe”, “lalala”, “kakaka”, “gagaga”
		• trouble with the voice when trying to talk, including hoarseness, weakness, strangled, strained, tremor, and change in pitch or quality or voice
		• difficulty and/or pain in PHONATION or speaking
		• vocal cords are affected
		• quick screening tools: ability to hold a sustained “ahhh” or “eeee”
			• oral phase issues with poor tongue manipulation of the bolus
			• pharyngeal phase; Coughing, choking with initiation of swallow
			• esophageal: feeling of sticking or blockage, often mid sternal

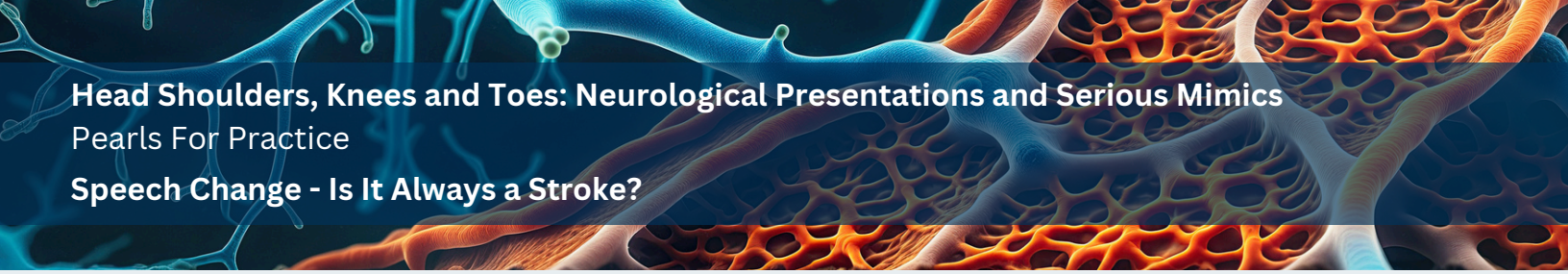
- Speech change that has sudden onset and does not progress is a sign of stroke
- Progressive speech change is a sign of neurogenerative disorders and neuromuscular disorders

When should you refer to an ENT?

- **(Rapidly) Progressive change indicates an urgent need**
- Pain on swallowing/whilst eating (odynophagia)
- Choking on solids (aspiration)
- Lateralizing movement of tongue
- Unilateral pain, etc.
- Ulcerations
- Bleeding
- Weight loss (indicates urgency)
- No other systems involved

When should do you refer to a neurologist?

- Speech change with changes in other bulbar systems
  - Ocular (eyelids, eye movements)
  - Swallowing (esp. early choking on liquids)
  - Fatigability
- Symptoms outside bulbar region
  - Weakness
  - Clumsiness (remember - “numb hand”)
  - Sensory changes
  - Falls



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What you get when you refer to an ENT

- Thorough head/neck exam
- Cranial nerve exam/screening neurology exam
- Assessment of laryngeal/pharyngeal function
- Speech/swallowing is a priority within Larynogology

What you get when you refer to a neurologist

- Detailed history
- Neurological examination
- Focused test requests
- More timely access to imaging

Things to include in your referral to get your patient triaged appropriately

ENT	Neurology
• Progression • Aspiration • Weight loss	
Objective findings on exam: • Pain • Bleeding • Ulceration • Obvious physical changes Risk factors • Smoking • Alcohol use • Etc.	• Weakness ◦ Eyelids, face, lip closure ◦ Any limb weakness • Presence of: ◦ Upper motor neuron signs ◦ Muscle wasting ◦ Progression ◦ Speech or swallowing ◦ Involvement of other areas

Concurrent courses of action

- Treat pain if present (neuropathic vs nociceptive)
- Refer to speech pathology service (SLP)
- Contact consulting physician
  - With results (eg SLP, imaging)
  - With reports of progression

FAST - speech/swallowing is a priority within otolaryngology Connect Care

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- Practice-driven quality improvement using objective data (CQI)
- Personal Development (PD
- Standards of Practice Quality Improvement (SOP).

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