Intervention and Management Strategies for Dysphagia

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Before beginning any program, it is understood that a complete evaluation would be performed. The indications from your evaluation may vary. Please consult the patient’s physician before beginning any program and on an on-going basis.

The following compilation is just general information, not specific to any patient.
AMYOTROPHIC LATERAL SCLEROSIS (ALS)

- Dysphagic Characteristics:
  - Oral control of the bolus
  - Reduced transport
  - Residue
  - Airway protection
  - Difficulty chewing Crary & Groher, 2003
  - Exaggerated gag
  - Food rejections
  - Time intensive
  - Salivary Issues
Interventions:

- Use chin-tuck position
- Maintain liquid intake
- Try drinking through a straw
- Use double swallow

- Maintain liquid intake
- Eat calorie dense foods
- Increase taste, temperature (colder), and texture sensation of liquid
Cerebral Palsy

- Characteristics
  - Tongue thrust, or poor lingual function
  - Prolong and exaggerated bite & gag reflex
  - Tactile hypersensitivity in the oral area
  - Drooling
  - Poor bolus formation & transit time
  - Trunk, shoulder, and head control problems.
  - Delayed swallow
  - Reduced pharyngeal motility
  - Residue
  - Aspiration
  - Pain & discomfort when swallowing
  - Food refusal and behavioral problems during feeding
Cerebral Palsy

- Interventions
  - Thicker texture foods may be indicated
    - Vary texture and temperature
    - Improve jaw, lip, and cheek control
    - Secret signals for wiping mouth and wrist bands to keep the face dry.
    - Stretching, brushing, vibrating, icing, and stroking areas of the face
    - Thicker textures – soft solid foods
    - Reduce rate of feeding
Cleft Lip and Palate

- Cleft Palate Pre-Surgery
  - Feeding problems:
    - Poor intake, lengthy feeding times
    - Nasal regurgitation
    - Choking
    - Gagging
    - Excessive air intake
    - Discomfort with feeding
    - Stressful feeding interactions between infant and caretaker

(Carlisle, 1998)
Dysphagia and Cleft Palate Post-Surgery

- Restricted diet to promote healing
- Some discourage bottle & recommend spoon or cup
- Some recommend not to use spoon or cup with spout
- Monitor nutrition & hydration for optimal healing
- Positioning: semi-upright position (head higher than stomach-at least 60 degrees) Positioning of the nipple: under a shelf of bone of the hard palate to provide stable base for compression
- Pace intake/ use consistent methods:
- Burping: Expel excessive air intake during feeding
- Nasal regurgitation: Allow infant time clear the nasal passage. May use slower flow nipple  
  (Kummer, 2008)
Dysphagia and Cleft Palate

Modified Nipples - Breast Feeding
- Cleft Lip only or cleft palate only
- Cleft Lip/Palate
  - Usually not an option (No effective means for positioning or compressing the nipple) (Kummer, 2008)

- Tube Feeding
  - Orogastric tube or NG tube
  - Gastrostomy Tube (G-tube) may be indicated if infant has abnormal oral reflexes or poor ability to protect airway (Kummer, 2008)
Other Craniofacial Anomalies

- **Pierre Robin**
  - Problems:
    - Suck-swallow-breathe pattern
    - Posterior position of tongue/respiratory difficulties
  - Techniques
    - Tube feeding if necessary
    - Positioning to facilitate tongue movement
    - Sidelying position with special bottle

(Kummer, 2008)
Moebius Syndrome

Characteristics:
- Inability to suck
- Weakness in the lips (can’t achieve adequate seal, causes excessive drooling)

Techniques:
- Feeder assisted squeezing
- Special bottle
Hemifacial Microsomia

Characteristics:
- Limitation in range of motion in jaw, lips, or tongue unilaterally

Techniques
- Utilization of stronger side of mouth
- Provide stabilization to weaker side
- Special bottle/nipple
Feeding Problems and Techniques for Other Craniofacial Anomalies

- **Treacher Collins Syndrome**
  - Problems
    - Inefficient sucking
  - Techniques
    - Special bottle

(Kummer, 2008)
Velocardiofacial Syndrome

Problems
- Dysmotility in the pharyngoesophageal area
- Fatigue because of cardiac involvement

Techniques
- Tube feeding as necessary
- Sensorimotor stimulation
- Special bottles/nipples
Dementia

- Characteristics:
  - Loss of appetite
  - Loss of understanding how to eat food.
  - Inability to recognize food
  - Indifferent to food
  - Easily distracted
  - Anxiety
  - Agitation
Create a quieter environment by having two dining rooms

- Create positive dining routines
- Provide consistent cues, prompts and redirections
- Appropriate support and set-up
- Recommended diet texture
- Specific cues and prompts to assist with self-feeding
- Safe swallowing strategies

Down Syndrome

- Down Syndrome is the most common genetic disorder caused by genetic variations.

Dysphagic Characteristics:

- Dysphagic signs and symptoms (Mayo Foundation for Medical Education and Research)
- at risk for feeding and swallowing disorders (dysphagia)
- at risk for nutritional compromise
- large tongue (macroglossia)
- underlying hypotonia (low muscle tone)
- small oral mechanism
- weak sucking or rooting reflexes

- respiratory problems, cardiac, gastro problems
  (Kerwin, 1999, 2003)
Down Syndrome - interventions

Simultaneous presentation of liked & disliked foods.
Gradually changing the type of food and/or utensil.
Progressive muscle relaxation
Systematic desensitization
Contingency management
Dysphagia is typically more severe in patients with right CVA than left CVA.

**Characteristics:**
- Difficulty with spatial perception...
- Left neglect.
- Impulsive eating
- Drooling from lip weakness:
- Reduced range of motion the tongue
- Delayed A/P oral bolus transit
- Delayed pharyngeal bolus motility
- Delayed laryngeal elevation
• Resistive exercises to strengthen and increase range
  – (tongue depressors)
• Range of motion exercises.
• Optimize textures that form a cohesive bolus- (no pudding..slides right down)
• Stimulate with cold food/stimuli.

*Other patients may receive recommendation to feed with large amt on spoon, but not safe with pts. with right CVA b/c of impulsivity.
Counsel caregiver to feed to unimpaired side. Increase awareness to impaired side with cold stimuli (food and lemon swabs). Counsel patient to be aware of impulsivity. Promote consuming smaller bolus.

- Provide finger foods
- Encourage pt. to cut food into smaller pieces
Use labial resistive exercises to increase strength.
Intraoral placement to unimpaired side.
Right CVA – Pharyngeal phase.

- Effortful swallow: over exaggerates swallow, engaging the muscles by using greater force.
- Tongue base retraction exercise: promote tongue base mvmt which assists in quickly moving bolus to esophagus.
- Masako tongue hold – tongue is held while swallowing w/o bolus; engages posterior pharyngeal wall and muscles for laryngeal elevation.
- Laryngeal exercises that assist with vocal fold adduction such as push/pull on chair, take a breath/hold/cough.
- Compensatory strategies: chin tuck which protects th i i th th i l tti
Laryngectomy - characteristics

- Aspiration
- Muscle spasms
- Stenosis - or poor bolus clearance
- Diminished sense of smell/ appetite
Laryngectomy- treatments

• Chin-tuck maneuver
• Supraglottic and Super Supra Glottic Swallow
  Breath-hold followed by coughing in order to clear residue
• Mendelsohn Maneuver
  Prolonging the swallow
• Food Modification
• Effortful Swallow
Myasthenia Gravis

- Dysphagia Characteristics
  - Difficulty chewing or swallowing
    - Lip incompetence
    - Tongue and masticatory weakness
    - Weakness of oropharyngeal muscles
  - Possible silent aspiration
  - Fatigue
  - Decreased laryngeal elevation
  - Decreased tongue base and elevation
  - Decreased epiglottic movement
Myasthenia Gravis - techniques

- Mendelsohn maneuver (lifting of larynx)
- Laryngeal adduction procedures
  - Supraglottic swallow
  - Breath hold
  - Push-pull with phonation (“ahhh”)
- Feeding strategies (alter bolus volume and consistency) freq. small meals
- Compensatory strategies (tongue sweep for pocketing)
- Try lip closure or tongue movement techniques
- Positioning
Left Hemisphere

Dysphagia Characteristics

- Difficulty coordinating swallowing muscles due to oral apraxia
- Sensory issues: difficulty feeling where food is during any stage of the swallowing process: can cause spillage or aspiration
- Paralysis of swallowing muscles on right side of neck
- Neglecting food on right side of plate or tray due to right-sided spatial neglect
- Weak swallowing muscle
- Coughing or choking
- Wet or gurgly sounding voice
- Extra effort or time needed to chew or swallow
- Food or liquid leaking from or getting stuck in the mouth
- Weight loss

- Lees et al., 2006
Left Hemisphere

Additional Problems Related To Swallowing

- Inability to communicate swallowing difficulties to medical staff due to expressive language impairments
- Inability to understand swallowing treatment instructions due to receptive language impairments
Left Hemisphere

- Treatment
  - Strengthening, coordinating exercises & strategies
  - Dietary changes:
  - Electrical Stimulation/Neuromuscular stimulation (controversial)
    - Marchese-Ragona, Giacometti, Costantini, & Zaninotto, 2006
Multiple Sclerosis

Dysphagic Characteristics
- Reduced tongue control,
- Impaired tongue base retraction
- Delayed or absence of pharyngeal swallow/pool
- Reduced pharyngeal contraction
- Upper esophageal sphincter dysfunction
- Reduced laryngeal closure, c/o choking
- Reduced pharyngeal and/or laryngeal sensation
- Hypo salivation-- drooling
Multiple Sclerosis
Treatment Approaches

- Rehabilitative treatment
  - Compensatory techniques (Chin tuck, effortful swallow)
  - Indirect therapy (exercises to strengthen swallowing muscles)
  - Direct therapy (exercises to perform while swallowing)
  - Reduce textures.
  - Avoid “washing down food”
  - Position - sit upright
  - Small bites
  - Reduce distractions - don’t talk while eating

- Restive, Marchese-Ragona, & Patti (2006)
Rett Syndrome characteristics

- Weight loss/poor weight gain
- Oral motor dysfunction
- Regression in swallowing skills with age
- Chewing difficulty may increase with age
- Significant pharyngeal involvement
- Aspiration of liquids, secondary to reduced laryngeal closure during the swallow
- Aspiration risk and incidence of pneumonia can be high
- Air swallowing
Fetal Alcohol Syndrome

dysphagic characteristics

- Poor sucking and swallowing
- Sensory deficits
- Range of motion in jaw frequently reduced
- Functional short gut with feeding problems
- CNS problems: seizures, palate (high, cleft, submucous cleft)
- Motor coordination

V.H. Wacha & J.E. Obrzut April 19, 2007 – review of literature on FAS
http://www.emedicine.com/ped/topic142.htm

General Treatment
• Consultation with nurse/family
• Adaptive equipment
  • Nipples most consistent with sucking pattern
• Thickened liquids/formula
• Multiple feedings
  • A minimum of 10-12 times/day
• Non-nutritive sucking
General Treatment
Consultation with nurse/family
Adaptive equipment
Nipples most consistent with sucking pattern
Thickened liquids/formula
Multiple feedings
A minimum of 10-12 times/day
Non-nutritive sucking
FAS- treatments

- Consultation with nurse/family
- Adaptive equipment
  - Nipples most consistent with sucking pattern
- Thickened liquids/formula
- Multiple feedings
  - A minimum of 10-12 times/day
- Non-nutritive sucking
Apraxia-CHaracteristics

- Dysphagia in developmental apraxia of speech
  - Weight loss
  - Excessive drooling
  - Weak suck
  - Difficulty initiating the swallow
  - Difficulty coordinating and timing muscle movements involving swallowing
HIV or AIDS

- HIV (human immunodeficiency virus)
- AIDS (acquired immunodeficiency syndrome)
  - chronic, life-threatening condition caused by HIV.
  - the later stages of an HIV infection

HIV/AIDS-dysphagic characteristics

quick weight loss
nausea
vomiting
Decreased laryngeal elevation
Decreased tongue base and retraction
sore throat (dry cough)/ painful swallow
Decreased pharyngeal wall contraction.
Painful swallow
c/o “lump in throat”
HIV/AIDS treatment:

- Determine whether the patient is able to swallow pills before giving oral medications. If pills are not tolerated, the patient may need liquids or troches.
- Diet modifications
- Compensatory strategies
- Exer. Prog = pharyngeal, laryngeal, tongue base/
- Med management.

**Important**: patients maintain adequate caloric intake, preferably with foods and liquids that can be swallowed easily. Nutritional supplements along with soft, bland, high-protein foods are recommended. Refer to nutritionist as needed.

*Great Resource for coping with discomforts: [http://www.metroplexhealth.com/hiv.htm](http://www.metroplexhealth.com/hiv.htm)

United States Department of Veterans Affairs (2007)
Head Injury
dysphagic characteristics

- Abnormal oral reflexes
- Laborious tongue movements
- Poor lip closure
- Poor mouth opening – delayed initiation
- Slow motor movements
- Reduced range of pharyngeal, and laryngeal
- Abnormal chewing
Parkinson’s characteristics

- Reduced tongue base movement
- Reduced lip closure
- Tongue pumping
- Delayed initiation of swallow
- Silent aspiration
- Lack of volitional cough
- Anterior chew
- Drooling
- Tremors in oral musculature
Parkinson treatments

- AROM at strength peaks
- Thickened liquids
- Chewing exercises
References


References


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