



Normal



Functional



Disordered

Plotting the course of change in
therapy and how to avoid treating
functional behavior

Patient 2

Pons stroke 12/15/2017

1st MBS 12/18/2017

2nd MBS 12/27/2017 in patient rehab

Pt has been implementing effortful swallow to increase sensory response to swallow initiation across solid and liquid boluses while in house. RBS indicated today to assess pathophysiology of current swallow to better guide dysphagia treatment and identify least restrictive diet.

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Pharyngeal stage was moderately impaired and characterized by delayed laryngeal vestibule closure with thin and nectar contrast during the swallow as well as reduced laryngeal elevation.

Initiation: delayed

Hyolaryngeal elevation and excursion: reduced

Epiglottic inversion: partial inversion

Pharyngeal constriction: reduced with liquid boluses

Laryngeal closure: inadequate

Vallecular residue: mild with liquid boluses

Pyriiform residue: unremarkable

Extent/Duration of upper esophageal sphincter opening: adequate

Laryngeal Penetration: none appreciated

Tracheal Aspiration: thin liquids x2 (no compensations), nectar liquids x1 (no compensations)

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Penetration/Aspiration Score:

Thin: 7- Material enters the airway, passes below the vocal folds, and is not ejected from the trachea despite effort

Nectar (without compensation): 7- Material enters the airway, passes below the vocal folds, and is not ejected from the trachea despite effort

Honey: 1- Material does not enter the airway

Soft solid: 1- Material does not enter the airway

Pudding coated regular solid: 1- Material does not enter the airway

Esophageal stage was unremarkable on lateral view.

Compensatory strategies: none

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Today's rehab barium swallowing evaluation reveals a moderate sensorimotor oropharyngeal dysphagia characterized by insufficient airway protection despite immediate, reactive cough for both thin (x2) and nectar thick liquids (x1). Pt with consistently delayed LVC which was cause of aspiration during the swallow when compensations were not utilized. Pt implemented breath hold as well as chin tuck with single cup sips of nectar contrast each x2 with chin tuck proving to be most consistent method of protecting airway and elevating larynx. Reduced oral and pharyngeal sensory responses were appreciated across liquid and solid boluses contributing to premature loss of bolus to the level of pyriforms as well as vallecular residue which Pt did not report sensing post-swallow. Cues to complete double swallow effectively cleared residual in the pharynx. Pt able to protect airway and seemingly sense weightier boluses (e.g. honey-thick liquids, soft pears and graham cracker) in the pharynx evidenced in timing of LVC, pharyngeal constriction/clearance, and adequate epiglottic inversion.

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Recommendations:

1. Continue present MS diet with HONEY-thick liquids this evening
2. Trial NECTAR-thick liquids during meal tomorrow with SLP only
 - Implement chin tuck and subsequent double swallow (also with chin tuck) with all liquid boluses
3. Introduce thermal modifications to liquids to increase sensory response with meals and during formal dysphagia therapy including the following exercises:
 - Supraglottic swallow maneuver
 - Effortful swallow
4. Continue intensive dysphagia therapy while in house and at next level of care

Patient 2

Pons stroke 12/15/2017

On nectar thick diet

Clinical eval on 1/17/2018 (in patient rehab)

The evaluation was completed in clinic and the patient was given thin liquid, apple sauce and solid food items.

The patient was able to eat independently.

Results/Findings/Observations:

The oral phase was within functional limits.

Pharyngeal deficits included delayed swallowing initiation, reduced hyolaryngeal elevation and excursion and multiple swallows per bolus.

Clinical signs of symptoms of aspiration were not observed

Patient 2

Pons stroke 12/15/2017

On nectar thick diet

Clinical eval on 1/17/2018 (in patient rehab)

SLP Tx on 1/25/2018 (in patient rehab)

Mr. Bush complete 3 sets of 10 CTAR exercises utilizing a rolled towel with each rep consisting of a 3 second squeeze with max effort targeting hyolaryngeal excursion. He followed with 3 sets of 10 effortful swallows with NTL targeting stenghtening of base of tongue retraction and pharyngeal constriction.

Are any of these actually impaired??

Patient 2

Pons stroke 12/15/2017

On nectar thick diet

Clinical eval on 1/17/2018 (in patient rehab)

SLP Tx on 1/25/2018 (in patient rehab)

4 days later:

VFSS on 1/29/2018 (Our study)

Patient 2

2 weeks after our study:

Still in SLP therapy....

Mike completed 1 set of 10 effortful swallows with puree consistencies, 1 set of 10 effortful swallows with mechanical soft/mixed consistencies and 1 set of 10 effortful swallows with regular consistencies. RBSS at SSC lab reported swallow WFL and recommendations included upgrade to regular and thin consistencies...

Patient 2

2 weeks after our study:

Still in SLP therapy....

Mike completed 1 set of 10 effortful swallows with puree consistencies, 1 set of 10 effortful swallows with mechanical soft/mixed consistencies and 1 set of 10 effortful swallows with regular consistencies. RBSS at SSC lab reported swallow WFL and recommendations included upgrade to regular and thin consistencies... Mike was educated to continue with HEP including CTAR, EMST, Mendelsohn, Masako and effortful swallow. Patient was also instructed on dysarthria management strategies including over articulation and pacing to influence precision in articulatory placement.



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Rehab managers be like...



...can't you pick them up for cog?

ETHICS

Cough = swallow problem

Brainstem stroke = swallow problem

Sweet-smelling urine may be the result of either glucose or ketone excesses in the **urine**. Since you have blood sugars consistently in the 85–105 range, it does not appear that you suffer from diabetes. However, ketonuria could be the cause, which comes from excessive dieting or other rare metabolic conditions. Sep 3, 2007

[My Urine Smells Sweet! - Healthy Living Center - Everyday Health](https://www.everydayhealth.com/specialists/urology/...urine-smells-sweet/index.aspx)
<https://www.everydayhealth.com/specialists/urology/...urine-smells-sweet/index.aspx>

not diabetes pregnancy uti

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Physician: “well your pee smells sweet so I’m going to give you insulin. I don’t need any other unnecessary testing to confirm Diabetes. I’m sure your A1C is high. Also, I’ll just give you a “typical” dose.

Patient #1

Brainstem stroke

Very dysfunctional swallow

Yet, some normal and functional components

Goal: focus on “treatable” components

NOT in SLP Tx

Patient #2

Brainstem stroke

Normal/Functional Swallow

Infrequent aspiration on tiny amount

Goal: Leave him alone!

STILL in SLP Tx

Jumping to conclusions about what the SLP “must be thinking” or is “not thinking” is fair game when no sound physiological rationale is provided