



68° CONGRESSO NAZIONALE **SIGG**

Ritorno al futuro

FIRENZE, 13-16 DICEMBRE 2023
PALAZZO DEI CONGRESSI



SARCOPENIC DYSPHAGIA: A BITTER PILL TO SWALLOW

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CONFLICT OF INTEREST DISCLOSURE

Presentation / Consulting honoraria from

- Abbott
- Cepton Strategies
- Difass International
- Nutricia
- Pfizer



SARCOPENIC DYSPHAGIA: WHAT'S IN THE NAME?

Swallowing disorder due to generalized sarcopenia with involvement of swallowing muscles

- Dysphagia: difficulty in forming and moving saliva and/or food bolus from the oral cavity to the stomach, successfully and safely
- Stroke sequelae, Parkinson's disease, and dementia account for approximately 75% of cases
- Prevalence of dysphagia: 15% in the community, 68% in nursing homes

Dionyssiotis et al., Eur Geriatr Med 2017

Dellis et al., J Frailty Sarcopenia Falls 2018



SARCOPENIC DYSPHAGIA: WHAT'S IN THE NAME?

Decline in mass and strength of swallowing-related muscles

- Decreased thickness of the tongue, geniohyoid muscle, and pharyngeal wall
- Increase in pharyngeal lumen size
- Decreased tongue strength
- Reduced range of tongue motion
- Weakened pharyngeal muscle contraction
- Poor endurance of swallowing muscles



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SARCOPENIC DYSPHAGIA: SIGNS / SYMPTOMS

Inability to swallow

Feeling as if food is stuck in the throat or chest or behind the breastbone

Drooling

Hoarseness

Regurgitation

Heartburn

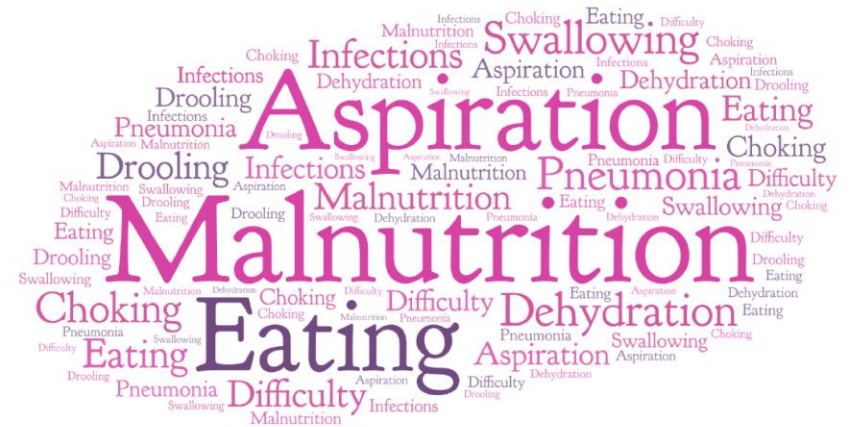
Weight loss

Coughing or gagging when swallowing



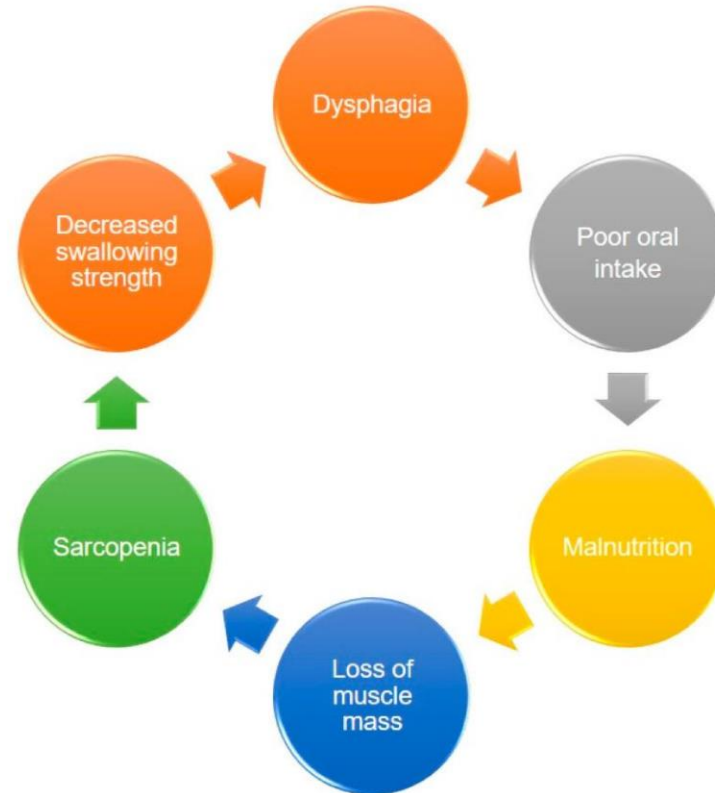
SARCOPENIC DYSPHAGIA: POSSIBLE OUTCOMES

- Malnutrition
- Dehydration
- Respiratory infections
- Aspiration pneumonia
- Frequent readmissions
- Institutionalization
- Death





SARCOPENIA & DYSPHAGIA: A TALE OF TWO





SARCOPENIC DYSPHAGIA: DIAGNOSTIC CRITERIA

WORKING GROUP ON SARCOPENIC DYSPHAGIA (JAPANESE SOCIETY OF DYSPHAGIA REHABILITATION)

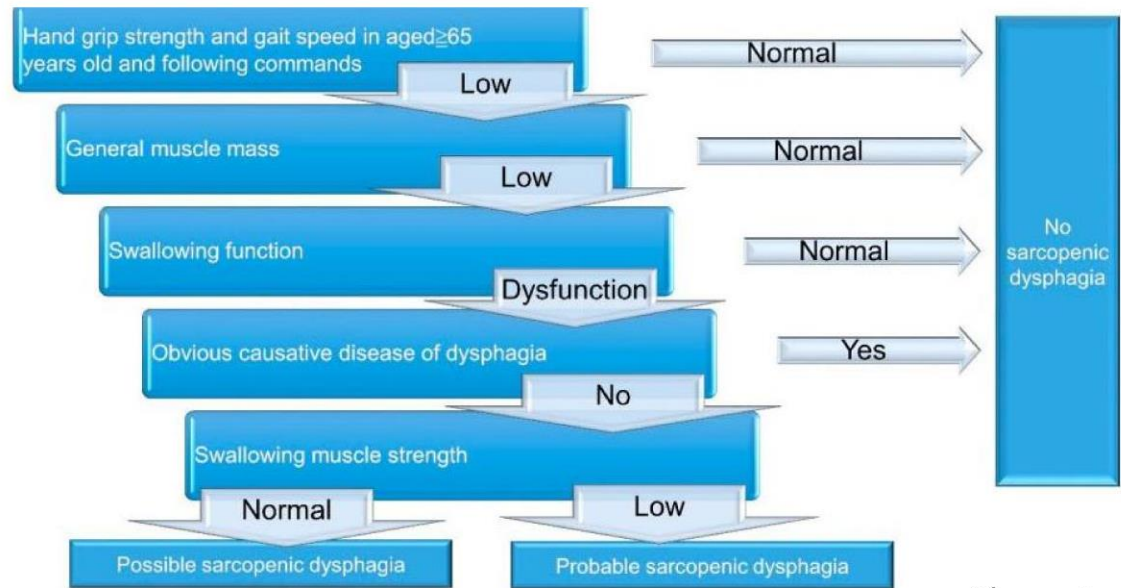
Item	Criteria
1	Presence of dysphagia
2	Presence of whole-body sarcopenia
3	The results of imaging tests (computed tomography, magnetic resonance imaging, ultrasonography) are consistent with loss of swallowing muscle mass
4	The causes of dysphagia are excluded except for sarcopenia
5	The main cause of dysphagia is considered to be sarcopenia

Definite diagnosis: 1, 2, 3, 4. Probable diagnosis: 1, 2, 4. Possible diagnosis: 1, 2, 5.



SARCOPENIC DYSPHAGIA: DIAGNOSTIC ALGORITHM

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ASSESSMENT OF SWALLOWING FUNCTION

10-item Eating Assessment Tool 10 (EAT-10)

Circle the appropriate response.

To what extent are the following scenarios problematic for you?

1. My swallowing problem has caused me to lose weight.
2. My swallowing problem interferes with my ability to go out for meals.
3. Swallowing liquids takes extra effort.
4. Swallowing solids takes extra effort.
5. Swallowing pills takes extra effort.
6. Swallowing is painful.
7. The pleasure of eating is affected by my swallowing.
8. When I swallow food sticks in my throat.
9. I cough when I eat.
10. Swallowing is stressful.

0 = No problem 4 = Severe problem

0	1	2	3	4
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4

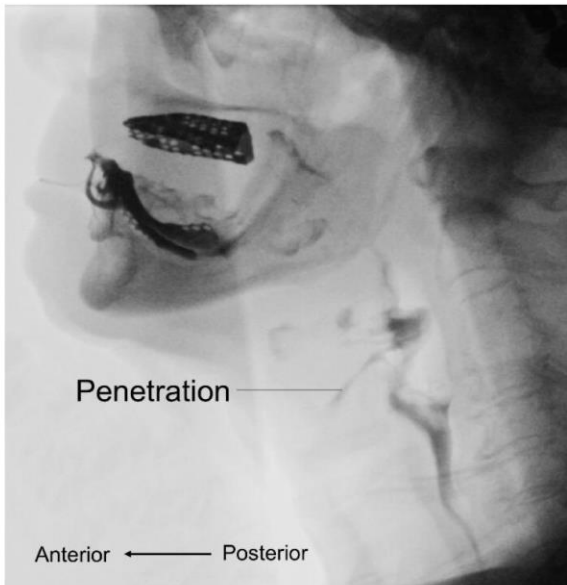
Total EAT-10

Cutoff = 3



ASSESSMENT OF SWALLOWING FUNCTION

Videofluoroscopic swallow study (VFSS): provides objective information on bolus transport during swallowing

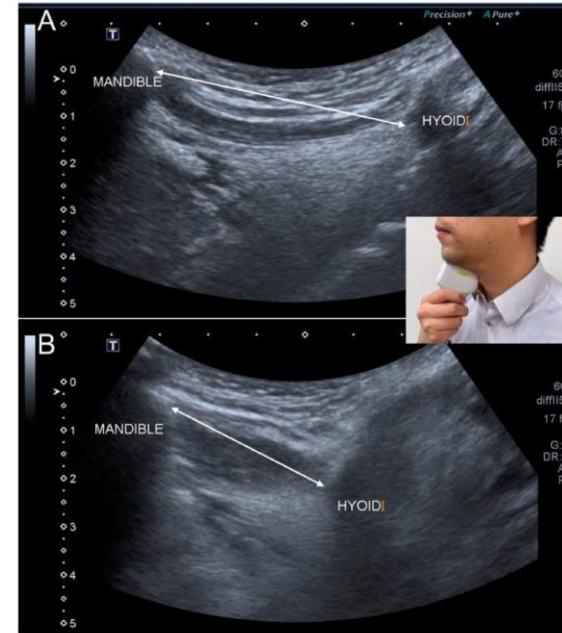
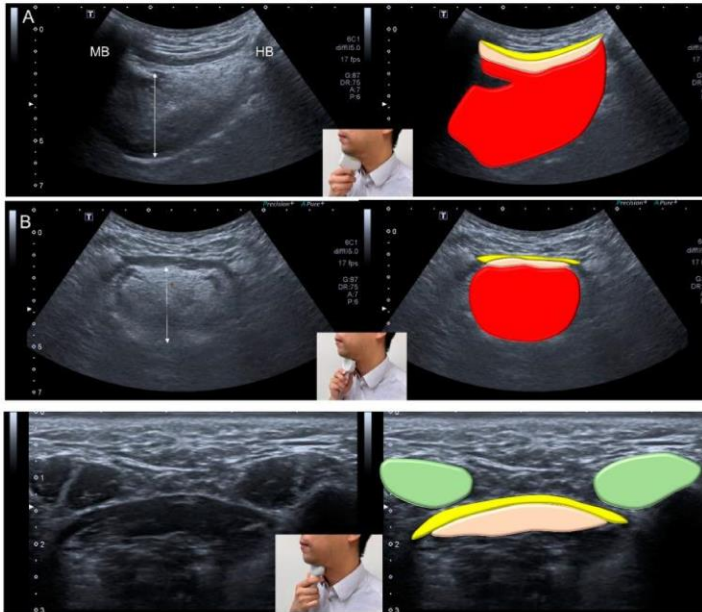


Chen et al, Nutrients 2021



MEASUREMENT OF SWALLOWING MUSCLE MASS (AND FUNCTION)

Ultrasounds

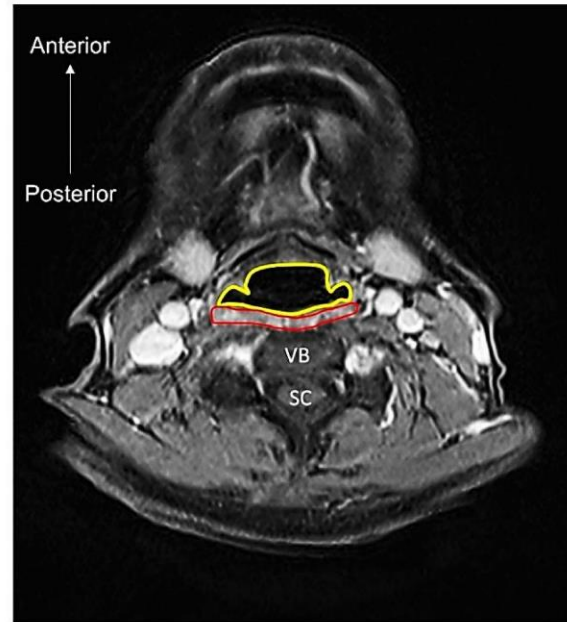


Chen et al, Nutrients 2021



MEASUREMENT OF SWALLOWING MUSCLE MASS (AND FUNCTION)

Magnetic resonance imaging

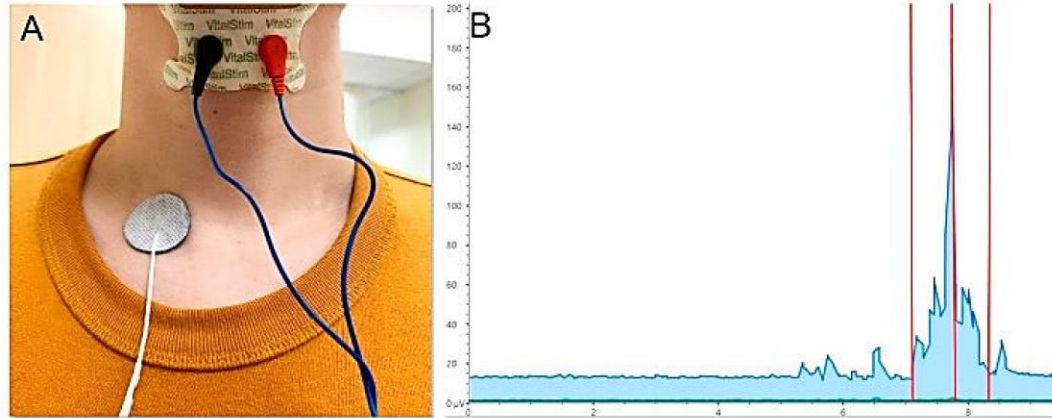


Chen et al, Nutrients 2021



ASSESSMENT OF SWALLOWING FUNCTION

Surface electromyography: evaluation of swallowing muscle activity





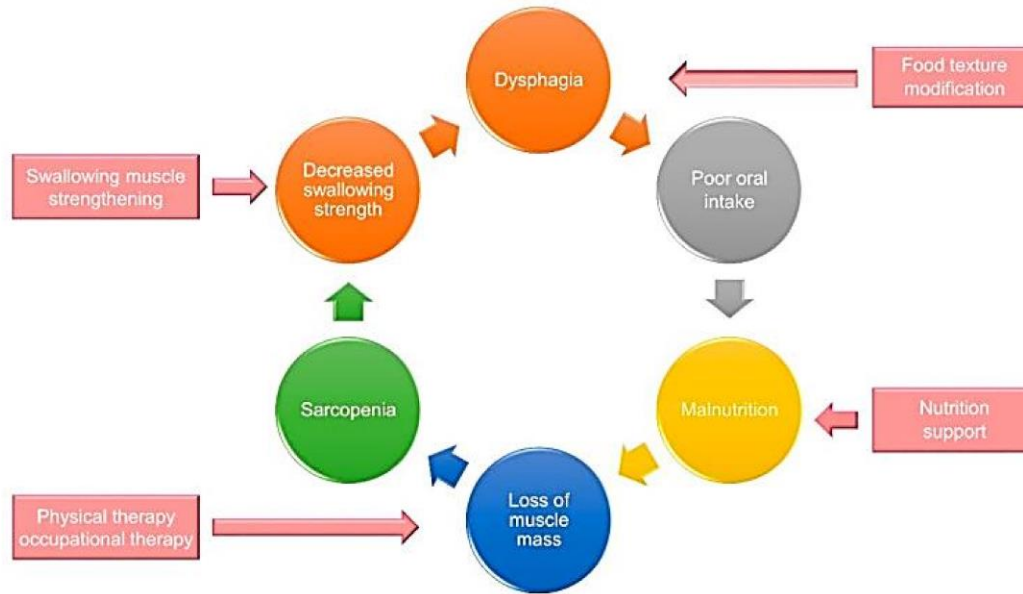
ASSESSMENT OF SWALLOWING FUNCTION

Maximal Isometric Tongue Pressure: tongue isometric strength measured by a device with a disposable oral balloon probe and a plastic pipe





TREATMENT OF SARCOPENIC DYSPHAGIA





SUMMARY OF KEY POINTS

- Sarcopenic dysphagia is a recently recognized entity, with an impact on patient prognosis and quality of life
- The full diagnostic workup of sarcopenic dysphagia is complex
- As with sarcopenia, treatment can be started in cases of probable or possible sarcopenic dysphagia
- Treatment of sarcopenic dysphagia involves a multidisciplinary approach to prevent complications, ameliorate swallowing function, and improve nutritional status.