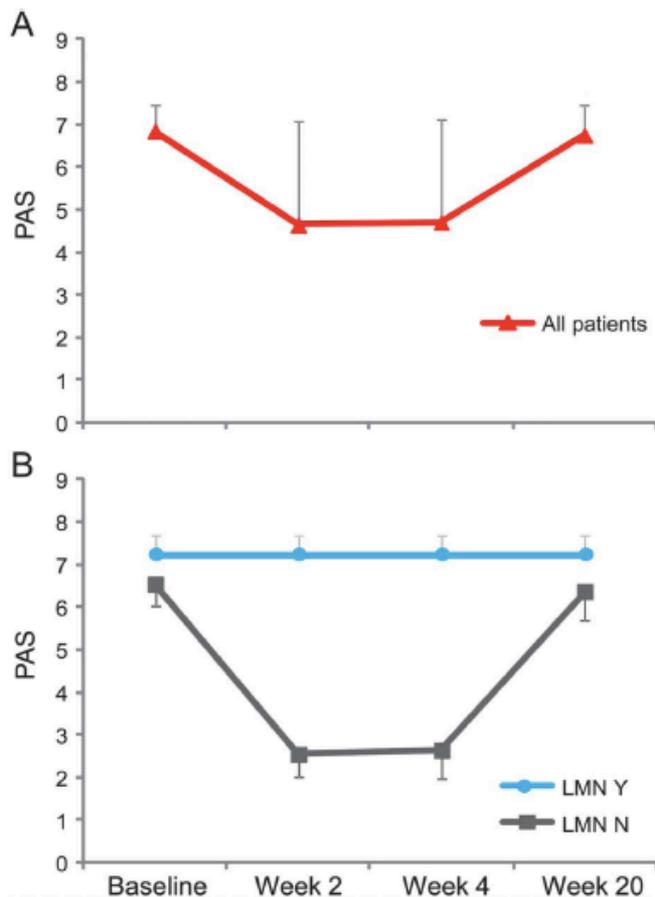


ALS dysphagia pathophysiology

Differential botulinum toxin response

Domenico A. Restivo, MD, PhD
Neurology® 2013;80:616-620

Figure Mean values and SD of the Penetration/Aspiration Scale before (baseline) and 2, 4, and 20 weeks following botulinum toxin type A administration



(A) Mean (\pm SD) Penetration/Aspiration Scale (PAS) changes for all the evaluation sessions in all 20 patients. (B) The same measurements in the 2 subgroups of patients with (group 1) or without (group 2) signs of lower motor neuron (LMN) impairment of the oropharyngeal muscles.

A型ボツリヌス毒素接種

上食道括約筋の弛緩不全

- 下位運動ニューロン障害

➡ 嚥下スケールの改善(+)

上食道括約筋の弛緩不全

+ 下位運動ニューロン障害

➡ 嚥下スケールの改善(-)