Underdiagnosis of dysphagia in athletes with learning disabilities

Van Rems-Dijkstra, E.¹ • Boone, M.L.² • van Well, N.² • De Paermentier, R.^{3,4} • Beeckman A.S.^{3,4}

¹Klimmendaal Revalidatiespecialisten, Apeldoorn, the Netherlands • ²Nestlé Health Science, Oosterhout, the Netherlands • ³Artevelde University College, Ghent, Belgium • ⁴AZ Maria Middelares, Ghent, Belgium.

Introduction

Dysphagia is a common problem in people with neurological impairment (NI). It is estimated that the prevalence of dysphagia is ranging from 36-90% in people with NI^{1,2}. Despite the high prevalence, dysphagia is often not recognized. Untreated dysphagia increases the risk of aspiration, pneumonia, malnutrition; and negatively impacts quality of life^{3,4}. Early identification of swallowing difficulties in high-risk populations is a critical first step toward improving awareness, timely intervention, and patient outcomes.

Methods

Athletes participating at the Dutch and Belgian 'Special Olympics' (SO) of 2024 were investigated. Most athletes had a learning disability and were not wheelchair bound. During the events of SO, potential dysphagia was identified with the 'Swallow Signaling List' (SSL)⁵. The SSL contains questions on eating & drinking and includes 2 tests: one for food (TOMASS: Test of Mastication and Swallowing of Solids) and one for liquids (Water Swallow Test).

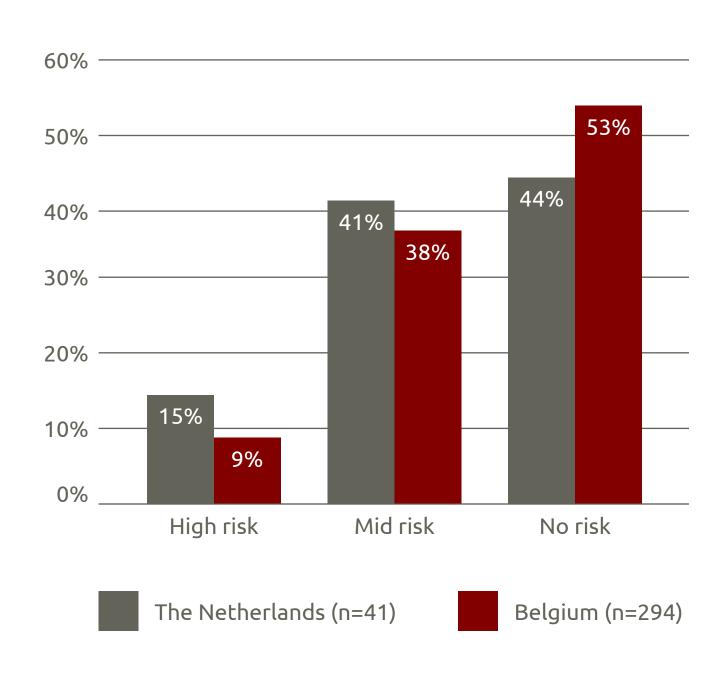
Results

During the events a total of 335 athletes were tested (294 in Belgium and 41 in the Netherlands). Athletes with an estimated high or mild risk of having dysphagia (Figure 1) received the advice to see a health care professional for further examination.

Discussion

These results indicate that the possible presence of dysphagia is still underdiagnosed in a population with learning disabilities. It is worthwhile to mention that the SSL has been part of the "Healthy Athletes Program" (HAP) of SO Belgium for 3 years, while in the Netherlands 2024 was the first year the SSL was included in the HAP. This could partially explain the differences between the two countries.

Figure 1: Estimated risk of having dysphagia



Recommendation

Standard SSL administration at SO could increase the awareness of swallowing problems and therefore help prevent complications in this high risk population.

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References: 1) Romano et al. JPGN. 2017:65;2. 2) Leslie et al. Dysphagia. 2009 ; 24(1), 103-104. 3) Dodrill et al. Annals of Nutrition and Metabolism. 2015;66.Suppl. 5: 24-31. 4) Rajati et al. J Transl Med. 2022:20(1):175. 5) Gevaert et al. (2024). Afname en aanpassing van de sliksignaleringslijst op de Special Olympics Belgium. Bachelor thesis PBA Speech language sciences, Artevelde University College Ghent, Belgium.









