Determining the proportion of dysphagia in post-stroke patients admitted to a teaching hospital in Sri Lanka.

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Background: Post-stroke dysphagia (PSD) is one of leading cause to increase the number of deaths in stroke patients in worldwide. By today, early identification and detection of post-stroke dysphagia is increased due to its severity. Sri Lanka is low-middle income country (LMIC) and currently there is no study about proportion of post-stroke dysphagia in Sri Lanka. Dysphagia is one of severe complications following stroke. And also, PSD can lead to even death.

Objective/s: The purposes of the study are to evaluate the proportion of patients with PSD admitted to North Colombo Teaching Hospital, Sri Lanka and to determine the association between communication impairments and post-stroke dysphagia. This is novice research question to Sri Lankan context.

Methods: This analytical cross-sectional study recruited seventeen (n=17) adults age ranging from 18 and above male and female who were consecutively admitted to stroke unit with the diagnosis if ischemic or hemorrhagic stroke during acute period of stroke. Stroke was confirmed by either CT or MRI. Patients who were admitted between 29th of November to 23rd of December 2022 were recruited. GUSS, EAT-10 were administered to evaluate swallowing. Communication was evaluated when SLT record were not available. Period prevalence was measured to evaluate proportion of post-stroke dysphagia. Chi-square test, Mann-Whitney U test, and Kruskal-Wallis one way ANOVA were used to discover the association between dysphagia and communication impairment and other relevant variables.

Results: The proportion of dysphagia following stroke in a teaching hospital in Sri Lanka is 70.58%. Twelve (n=12) were presented with PSD. Mean age was 62.06 (SD=8.86) years. Majority of the sample was male (76.5%). The proportion of dysphagia in ischemic stroke is 52.94%. Association between PSD and communication impairment portrayed statistically significant association (x2 (1) = 5.4 , p=.020). Dysarthria is more prominent communication impairment of the sample (n=14). Overall, 88% of patients having communication impairment. Association between dysarthria and dysphagia (p=.707).

Conclusion/s: Proportion of post-stroke dysphagia is in critical level and it significantly associates with communication impairments. In order to improve outcomes and minimize post-stroke period complications, immediate evaluation or detection of dysphagia is significant.

Key words: *Dysphagia, acute-stroke, swallowing, association, proportion, communication impairment, Sri Lanka, Gugging swallowing screen, speech and language therapy, Dysarthria*