International Journal of Community Health Nursing

Journal homepage: www.mcmed.us/journal/ijchn

EFFECTIVENESS OF CHIN TUCK AGAINST RESISTANCE [CTAR] EXERCISE ON SWALLOWING ABILITY AMONG CEREBRO VASCULAR ACCIDENT PATIENTS WITH DYSPHAGIA IN SELECTED HOSPITALS

Abisha L*

Sardar Rajas College of Nursing, Kavalkinaru, Tirunelveli, Tamil Nadu, India.

Corresponding Author
Abisha L

Email:- abishalazer31342@gmail.com

Article Info
Received: 20/07/2023; **Revised:** 03/08/2023
Accepted: 21/08/2023

ABSTRACT

A study to assess the effectiveness of chin tuck against resistance (CTAR)exercise on swallowing ability among CVA patients with dysphagia. Purposive sampling technique was adapted for this study. Totally 30 Samples were selected. The investigator used self administering questionnaire to assessed the demographic and clinical variables and GUSS scale to assess the swallowing ability among CVA with dysphagia patients. findings reveals that in pre test, 30 patients (100%) had severe dysphagia and post test 14 patients (46.67%) had mild dysphagia, 9 patients (30%) had moderate dysphagia and 7(23.33%) had no dyspagia. Higher mean score in the post-test(16.63) with standard deviation ± 2.94, than the pre-test (4.23) with standard deviation ± 0.43, ('t'= 24.48, $p < 0.05$) which is statistically significant. This study revealed CTAR exercise was effective in improving swallowing among CVA patients with dysphagia.

Key Words: Dysphagia, Cerebro Vascular Accident(CVA) ,Gugging Swallowing screen scale (GUSS).

INTRODUCTION

Cerebro vascular accident is a leading cause of death and disability. Every year 20 million people suffer from cerebro vascular accident, among these 5 million do not survive. Dysphagia affects more than 50% stroke survivors. Majority of patients recover swallowing function within 7 days, and only 11-13% remain dysphagic after 6 months. Hypertension, alcoholism, smoking, diabetes mellitus and dyslipidemia are the most common causes of stroke. Since the elderly population is most commonly affected by stroke, . Dysphagia is one of the most common disabilities in patients with acute cerebro vascular accident. The word dysphagia, which comes from the Greek word 'dys' (difficulty) and 'phagia' (to eat), refer to the sensation of food being delayed or hindered in it's passage from the mouth to stomach. If brain stem is affected, swallowing difficulties will develop.

Statement of the Problem

A study to assess the effectiveness of chin tuck against resistance (CTAR) exercise on swallowing ability among cerebro vascular accident patients with dysphagia in selected hospitals at kanniyakumari district.

OBJECTIVES OF THE STUDY

To assess and compare the pretest and post test score on swallowing ability among cerebro vascular accident patients with dysphagia.

To determine the effectiveness of chin tuck against resistance (CTAR) exercise on swallowing ability among cerebro vascular accident patients with dysphagia.

To find out the association between pre test score on swallowing ability with selected demographic

variables among cerebro vascular accident patients with dysphagia.

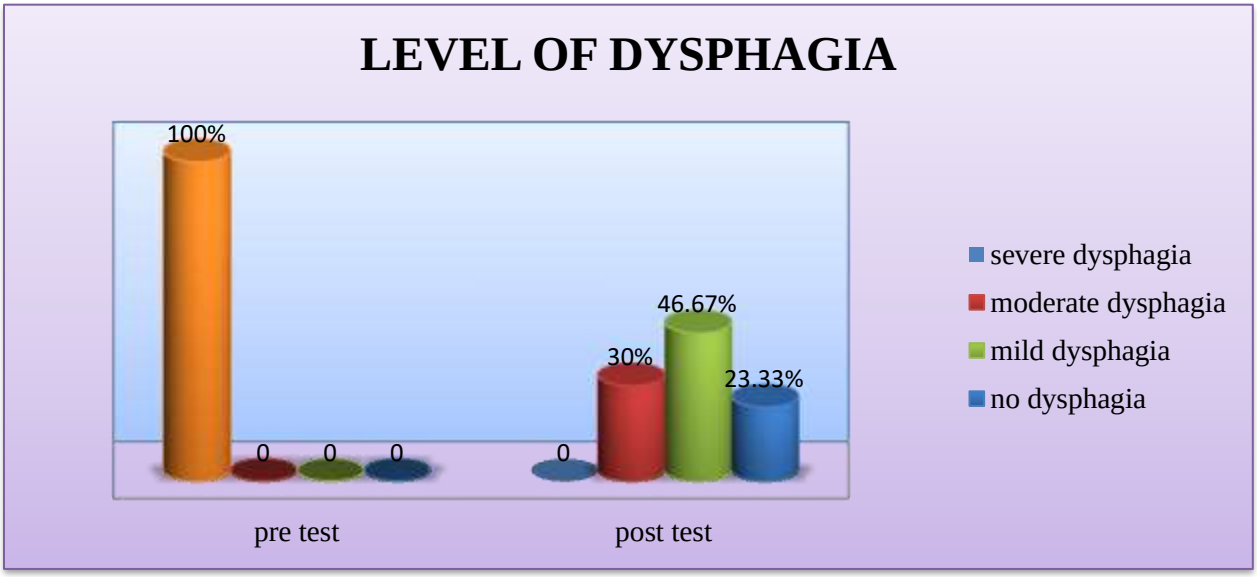
Methodology

Quantitative research approach was adapted for this study using time series design. CVA with dysphagia patients were selected by purposive sampling technique. Based on the sample selection criteria the samples were selected. After getting the initial permission, the investigator got informed consent from the participants and proceed with their data collection in a given period of time. The investigator used to assess the swallowing ability by using gugging swallowing screen scale and followed by demographic and clinical variables were collected. Ethical principles, justice were maintained during and after the course of data collection.

Table 1: Frequency and percentage distribution of sample subjects based on the pre-test and post-test level of swallowing among cerebro vascular accident patients with dysphagia.

Level of dyspagia	Pre test		Post test	
	f	%	f	%
Severe dysphagia	30	100.00	0	0.00
Moderate dysphagia	0	0.00	9	30.00
Mild dysphagia	0	0.00	14	46.67
No\ slight dysphagia	0	0.00	7	23.33
Total	**30**	**100.00**	**30**	**100.00**

Figure 1: Percentage distribution of pre test and post test level of swallowing ability among Cerebro Vascular Accident patients with dysphagia.



Scoring interpretation

RESULTS AND DISCUSSION

Age wise distributions revealed that only 12 patients (40.00%) belonged to 40-50 years. Around 11 patients (36.67%) belonged to the 51-60 years and 4 patients belong to 61-70 years (13.33%) and 3 patients aged 71-80 years (10%) formed the rest of the cases. According to the types of stroke they were 27 patients (90%) suffered ischemic stroke and 9 patients (10%) suffered hemorrhagic stroke. Regarding gender, Out of 30 patients 21 (70%) were males, 9 (30%) were females. Regarding religion, most of the sample subjects 53.33% were Hindu 36.67% were Christians and 10.00% were Muslims. Regarding education, out of 30 samples 6 (20.00%) samples were comes non formal education, 10 (33.33%) were comes in middle school, 5 (16.67%) were comes in higher secondary and 9 (30.00%) were comes in graduate. Pertaining to monthly income of family of the sample subjects, most of their family 33.33% were earning less than ₹5,000, followed by 33.33% between ₹ 5000-10000, 13.34% between ₹10000-15000 and 20.00% were earning more than ₹15000. Most of the sample subjects 16.67% were government employee, 13.33% were private employee, 60% were self worker and 10% were unemployed. Among the sample subjects, higher number (66.67%) were married, (10%) were unmarried and

23.33% were widower . Regarding nature of work 33.33% were sedentary worker, 43.33% were moderate worker and 23.34% were heavy worker. According to the habits of CVA patients 56.67% were taking smoking + alcohol, 13.33% were taking alcohol + tobacco and 30% were don't have any bad habits. Regarding the duration of illness 50% had newly diagnosed patients, 26.67% had less than one year, 13.33% had 1-3 years and 10% had 3 years and above. According to family history of stroke 6.67% only had family history of stroke and 93.33% didn't had family history of stroke. Most of the people affected with stroke due to the cause of embolism (70%) and 6.67% had hemorrhagic stroke and 23.33% were affected by some other causes. Regarding the associated illness of sample subjects 76.66% had diabetes and hypertension, 16.67% had diabetes, hypertension and ischemic heart diseases and 6.67% had diabetes, hypertension and chronic kidney diseases. Most of the people affected with ischemic stroke (90%) and 10% only hemorrhagic stroke. Regarding the diet history no one in nil per oral, 13.33% were liquid diet, 10% were semisolid diet and 76.67% were in Nasogastric tube feeding. The most common symptoms reported by stroke patients choaking +coughing 16 (53.33%), followed by swallowing difficulty 7 (23.34%), pain on swallow 4 (13.33%) and drooling 3 (10%).

DESCRIPTION

Figure 1 shows that percentage distribution of pre test and post test level of swallowing ability among cerebro vascular accident patients with dysphagia

With respect to level of knowledge, 30 (100%) of them had severe dysphagia in pre test. During the post test majority of samples 14 (46.67%) had mild dysphagia, 9(30%) had moderate dysphagia and 7(23.33%) had no dyspagia.

Association between the demographic variables and the level of knowledge

There is no significant association between pre test level of dysphagia and demographic variables such as age, gender, education, income, occupation among cerebro vascular accident patients with dysphagia at the level of $p<0.05$.

CONCLUSION

The study results conclude that chin tuck against resistance exercise was inexpensive and effective method for improving swallowing ability among the cerebro vascular accident patients with dysphagia. The present study was intended to assess the effectiveness of chin tuck against resistance exercise on swallowing ability among cerebro vascular accident patients with dysphagia. This study report that there was a faster improvement in swallowing ability among cerebro vascular accident patients with dyspahgia.

Conflict of interest: There is no conflict of interest
Source of fund: Self

Ethical clearance

The proposed study was conducted after the approval of the ethical committee. Assurance was given to the study participants regarding the confidentiality of the data collection.

References:

1. Brunner and Suddarth (2014). Medical and Surgical Nursing. (14th edition) Wolters Kluwer publication.
2. P.K.Panwar.(2019). Medical Surgical Nursing. AITBS publication.
3. Lewis's. (2015). Medical Surgical Nursing. (second south asia edition). Elsevier publication.
4. Black's (2019). Medical Surgical Nursing. (first edition) Elsevier publication
5. World health organization (2019). https:\\www.world-stroke.org.
6. Suresh K Sharma (2014). Nursing Research and Statistics. (second edition) Elsevier publication.
7. Pearson (2013). Nursing Research and Statistics. (first edition) Pearson education India.
8. Muthulakshmi (2018). *International journal of science and research* ISSN: 2319 – 7064.
9. Trapl, Michaela (2007) Dysphagia bedside screening for acute stroke patients: Gugging swallowing screen. stroke 38(11), 2948 -52.
10. Ali ZH. Effect of nursing care strategy on the functional and physical abilities of patient following stroke, *J Neurol Neurophysiol*. 2013, S8, 006.
11. Santhosh Priya. (2018). *International Journal of Practice Nursing*\Volume ijpn.2347.7083.6218.3
12. Reza Shaker. (2011) Management of Dyspnea in Stroke Patients. Advances in GERD. 2, 2011, 308-310
13. Kumar S, Selim MH, Caplan LR. (2010) Medical complications after stroke. *Lancet Neurol.* 9, 105–18.
14. Martino R, Foley N, Bhogal S, Diamant N, Speechley M, Teasell R. (2005) Dysphagia after stroke: incidence, diagnosis, and pulmonary complications. *Stroke.* 36, 2756–63.
15. Cohen DL, Roffe C, Beavan J, Blackett B, Fairfield CA, Hamdy S. (2016) Post-stroke dysphagia: a review and design considerations for future trials. *Int J Stroke.* 11, 399–411.

16. Arnold M, Liesirova K, Broeg-Morvay A, Meisterernst J, Schlager M, Mono ML. (2016) Dysphagia in acute stroke: incidence, burden and impact on clinical outcome. *PLoS ONE.* 11, e148424.