

뇌신경재활

발표일시 및 장소 : 10 월 27 일(토) 10:10-10:20 Room C(5F)

## OP2-3-2

### Effectiveness of Chin Tuck Posture in Dysphagia Rehabilitation

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#### Objective

Dysphagia is a common disorder and It can occur as a result of significant primary illnesses. It causes various complications, which are relevant to morbidity and mortality. Treatment of dysphagia has traditionally been centered on behavioral interventions, with the intended purpose of facilitating safe and efficient oral feeding. Among them, chin tuck is one of the Methods most widely used to prevent aspiration. However, a few studies raised suspicion about its effectiveness. In previous studies, only about half of patients could avoid aspiration during this maneuver. It was demonstrated that chin tuck maneuver can be more effective in a few favorable conditions. They are female sex, absence of residue in pyriform sinus, delayed swallowing trigger, reduced laryngeal elevation and penetration in thin liquid. This study is designed to investigate if chin tuck maneuver is truly effective in patients who meet those conditions.

#### Methods

The subjects were one hundred eighteen patients who showed aspiration or penetration on videofluoroscopic swallowing study (VFSS). Sixty-nine patients were male and forty-nine were female. Mean age was  $67.5 \pm 14.5$  years. VFSS was performed in two positions (neutral and chin tuck) and the findings were compared between positions. Parameters such as Penetration-aspiration scale (PAS), pharyngeal delay time (PDT), pharyngeal transit time (PTT), presence of excessive residue in vallecula and pyriform sinus and degree of laryngeal elevation were measured and analyzed.

#### Results

Aspiration was reduced or eliminated in only 22 patients with chin tuck maneuver. Even when the patients met all favorable conditions (female sex, absence of residue in pyriform sinus, delayed swallowing trigger, reduced laryngeal elevation and penetration in thin liquid) at the same time, chin tuck was effective only in 4 out of 18 patients. The patients with at least one favorable condition, chin tuck maneuver was effective in 20 out of 98 patients. In chi square analysis, chin tuck maneuver was more effective in patients with no residue in pyriform sinus ( $p=0.00$ ). It was also more effective when aspiration or penetration was evident in thin liquid swallowing ( $p=0.00$ ). However, only 34% (17/50)

and 54% (13/24) of patients with those conditions benefited from chin tuck. No other variables showed statistically significant difference.

### **Conclusion**

The Results showed that chin tuck maneuver is less effective than expected. It can be more effective when residue in pyriform sinus is not evident or aspiration/penetration in thin liquid swallowing is observed on VFSS but efficacy is still questionable. clinical usefulness of chin tuck is doubtful although it has been almost routinely prescribed for treatment of dysphagia in clinical field.