

The current status of test diet protocols for VFSS in Korean Hospitals

Dasom Yoon^{1*}, Ah-Hyun Lee¹, MinJung Ryu¹, Hyoung Su Park¹, Sunhan Son¹, Kyung-Mook Seo¹, Jaewon Beom¹, Si Hyun Kang¹, Don-Kyu Kim^{1†}

Chung-Ang University, College of Medicine, Department of Physical Medicine & Rehabilitation¹

Objective

This study has been conducted to identify the current status of test diet protocols for Videofluoroscopic Swallowing Study(VFSS) in Korean Hospitals.

Methods

We developed a questionnaire consisting of 25 questions related to current usage status of test diet for VFSS that includes types, texture recipes and supplied amount of test samples etc.. The questionnaire was asked to the expert physicians who directly implementing VFSS in 28 training hospitals, which were sent out and collected by e-mail from December 7, 2017 to February 19, 2018. Among them, 13 out of 28 hospitals selected randomly and we conducted field surveys including observing the process of the VFSS and test diet. The answers of existing e-mail surveys were complemented by in-depth interviews with experts of each hospital on the process of producing test samples and conducting VFSS. We classified the provided food by the level according to the type, and the test diet protocols were classified as stages according to the level and amount of food.

Results

As a result, the most common protocol was to provide a test sample with 7 stages, which was 28.6% of the total and it was followed by 5 and 6 stages as each 21.4%. The maximum test stages were 8 stages, and all institutions have more than three stages. In the order of provided test samples, 'the small amount of liquid(less than 5ml)' was the most provided in the 1st stage(53.6%). Also, 'the liquid(5~10ml)' and 'semi-solid(honey thick)' sample were the most used in the 2nd and 3rd stage respectively. Porridge and rice were the most commonly used in stages 4 and 5. The samples used at the final stage, 53.6% of institution supplied with 'the drinking with cup' followed by rice with 21.4%. Among the used samples of thin liquid level, 'water mixed with barium' accounted for the highest percentage in 'the small amount of liquid(less than 5ml)', 'the liquid(5~10ml)' and 'the drinking with cup'. However, the mixing ratio of the liquid samples and barium was not uniform among each institution. And there was difference in thickened liquid and semi-solid level. 'Yogurt' was used more than 35% and 45% respectively as the 'nectar thick' and 'honey thick'. Various samples were used on 'pudding thick'. But, only 42.9% measured the physical properties of test diets by using the viscometer and texturometer, and there was no case that presented specific values of physical properties such as viscosity, hardness, cohesiveness, and adhesiveness, etc..

Conclusion

In the 28 Korean hospitals, each hospital uses samples depending on experience or according to its own standards rather than unified standard among the institutions. Thus, the protocol and evaluation criteria for each hospital are not standardized, which limits are difficult to the accurate sharing of information about the test results. Therefore, it will be necessary to make a consensus for the protocol and evaluation standard of VFSS through future research.

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