American Journal of
Biomedical Science & Research

www.biomedgrid.com
ISSN: 2642-1747

Case Report

The Effect of Short-Term Swallowing Therapy on the Child with Feeding Problems: A Case Report

In Jin Yoon*

Department of Pediatric Rehabilitation Unit, Seoul Asan Medical Center, Korea

***Corresponding author:** In Jin Yoon, Department of Pediatric Rehabilitation Unit, Seoul Asan Medical Center, 88, Olympic-ro 43 Gil, Songpa-gu, Seoul, 05505, Korea.

To Cite This Article: *In Jin Yoon*, The Effect of Short-Term Swallowing Therapy on the Child with Feeding Problems: A Case Report. Am J Biomed Sci & Res. 2024 21(6) AJBSR.MS.ID.002893,* DOI: 10.34297/AJBSR.2024.21.002893

Received: : March 02, 2024; **Published:** March 11, 2024

Abstract

This paper is introducing the short-term swallowing therapy for 8 years-old boy who has food problem. The goal of the swallowing therapy was to find his favourite food and eat three pieces of it. The swallowing therapy was consisting of behavioural intervention, cognitive behavioural therapy, oral motor exercises, sensory stimulation, and mother education. The treatment was for 30-50 minutes per day for 5 days per week. At 10th treatment times, the goal of swallowing therapy had been achieved. Through this paper, it was found that the positive effect of a short-term swallowing therapy on oral intake of child with food problem. So, it is necessary to provide swallowing therapy to children with food problems, even if it is short-term.

Keywords: Child, Feeding problem, Swallowing therapy

Introduction

The specific medical conditions and developmental disabilities are often associated with feeding problems: food refusal, food selectivity by type, food selectivity by texture, oral motor delays, or dysphagia [1]. The feeding problems is results in nutrient deficits, decreased appetite, social skill deficits, and abnormal behaviors including whining, tantrums, or spitting out food [1-4].

The treatment of feeding problems was related with psychologists, physicians (i.e., general pediatrician or pediatric gastroenterologist), nutritionists, speech-language pathologists, and occupational therapists [5] The treatment intervention for feeding problems were behavioral intervention, oral motor therapy, cognitive behavioral therapy, psycho-educational approach, and sensory-based feeding intervention et al. [5-7] The results of treatment were reported improvement in oral consumption during meals, improvement in body weight, improvements in bite acceptance and swallowing, decreased disruptive behaviors, reduced caregiver stress, and improvement in mealtime interactions [5].

This paper presents the case study of 8-years old a boy who had feeding problems: food refusal, food selectivity by type, and food selectivity by texture. He was participated the short-term swallowing therapy for 10 times when he was hospitalized treat for bloody excrement and abdominal pain.

Presentation of Case

In September 2023, 8-years old a boy was admitted to the gastrointestinal nutrition department due to frequent vomiting and hematochezia. He was diagnosed methylmalonic acidemina at 3-months old. He had a gastrostomy tube at 3-years old. He could eat water without problem. But he couldn't eat solid food include pureed food. He only chewed the food and spit it out without swallowing it. He was intake the nutrition through the gastrostomy tube. Even though he was 8-years old, he could drink special milk from a bottle. However, he found it annoying to eat with his mouth and tried to get nutrition only through his gastrostomy tube. He has already been receiving swallowing therapy, sensory integration therapy, and occupational therapy for a long time at another rehabilitation clinic, but he has not been able to eat food through his mouth.

The 11 days after he was hospitalized, treatment was referred to the pediatric rehabilitation unit for swallowing therapy. He was

still NPO (nil per os) as a treatment for hematochezia, but his doctor of gastrointestinal nutrition department was decided to start swallowing therapy. Because the amount of food consumed by the mouth for swallowing therapy was very small. So, his doctor was thinking that swallowing therapy was not negative effect on his symptom.

First day, occupational therapist was evaluated his function. He could accurately answer his name, his age, the name of the school he attended, the name of the hospital, and his home address. He could read and write only his name. Excluded his name, he was difficulties in reading and writing, and adding single digits. As he was hospitalized, he was kept NPO, and he was felt hungry. He said, 'Yum, yum' or 'Yummy, yummy' while listening to the name of the food or watching a video, but when the therapist asked him to try it, he said, 'No, no' and tried not to eat it. The oral motor function on jaw, lip and tongue were correct. He was able to chew the stick with one molar and then move the stick to the opposite molar. When the therapist stimulated the back of the tongue, his gag reflex was triggered. He was able to cough spontaneously. When the therapist fed him a small piece of rice, he only chewed it and did not swallow. When the therapist gave him a cup of water and told him to swallow the rice with water, he only swallowed the water and left the rice in his mouth. When the therapist put a large amount of rice in his mouth, his gag reflex was triggered and spit out the food. His mother had a wish that he would eat any food with his mouth, even if it was a small amount. The therapist set the goal of the treatment to find his favourite food and eat three pieces of it. The swallowing therapy was consisting of behavioural intervention: extinction, positive reinforcement, and stimulus fading, cognitive behavioural therapy, oral motor exercises, sensory stimulation, and mother education.

The swallowing therapy was for 30-50 minutes per day for 5 days per week. The swallowing therapy was executed on his hospital bed with his tabletop PC and toy of vehicles. His mother was prepared the food which he was interested.

At start of the treatment, the therapist always asked to him how his feeling was, what kind of food prepared with his mommy. And discussed with him how much food he would eat. The therapist asked him to determine the amount of food he ate from a minimum of two times to a maximum of five times. At first, he refused to eat as much food as he promised because he did not believe the therapist. The therapist always ended the treatment if he ate the promised amount of the food. If he ate quickly, the treatment ended quickly, and if he ate slowly, the treatment continued until he ate the promised amount of the food. Gradually, he was trusting the therapist, and to believe that the therapist did not feed more than the promised amount. He gradually began to eat as much as he had been promised with therapist.

Before eating food, he had warm up exercise. The exercises were chewing the stick, lip exercises: make an exaggerated move of 'a', 'e', 'i', 'o', and 'u', tongue exercise: forward and backward, side to side, and upward and downward, make sound of 'lalalal', 'fafafa' and 'papapa', and puffing up his cheeks. He was participated warm up exercise very well. Then, the therapist applied slow and deep pressure gum massage though therapist's index finger to decrease his sensitive mouth sensation. However, he did not like gum massage, the therapist applied gum massage as short as possible.

He liked fried foods like fried shrimp, cheese sticks, and chicken nuggets, and salt- stained rice. But he would not eat anything else like vegetables and fruits. The therapist always gave him salt-stained rice as to fill his mouth at first. If his gag reflex was triggered, the therapist closed his mouth and prevented spitting out the food. And then, therapist showed him his favourite video or toy for shift his attention. When decreased the gag reflex, therapist gave him a cup of water to swallow the rice with water. If he swallowed only water and kept the rice in his mouth, the therapist was request him open the mouth, and said 'Oh, there's food left here. We promised to eat. You can eat the food. Cheer up. If you eat the food, I'll show you the video. The toy of vehicles was watch you'. The therapist encouraged him to swallow the rice with water until his mouth near empty. He felt awkward about the food being swallowed and going down his throat. The therapist gave him a huge compliment every time he swallowed solid food. Gradually after he swallowed his food, he looked at the therapist with a proud expression on his own, and the therapist and his mother gave him a tremendous compliment. After first food, the therapist gave him food that he said he would eat. He grabbed the cheese stick and fried shrimp with his hands and ate them on his own. At first, he couldn't swallow it, so he swallowed it with water, but gradually he was able to swallow the cheese stick and fried shrimp without water.

At 10th treatment times, he could eat the food at least three times. Although he was not able to eat enough with his mouth to get nutrition. When his mood was good, he could eat the food five times. The goal of swallowing therapy had been achieved. And his mother was very satisfied, knowing exactly how to eat with his mouth. Therefore, the swallowing therapy was terminated. The 9 days later, he was cured of his symptoms and discharged from the hospital.

Discussion

The short-term swallowing therapy was positive effect on the oral intake of child with food problem. The short-term swallowing therapy was consisting of behavioural intervention, cognitive behavioural therapy, oral motor exercises, sensory stimulation, and mother education. The behavioural intervention represented the most common treatment approach to children with feeding disorders [5]. The behavioural therapy, cognitive behavioural therapy, and psycho-educational therapy were helped to improve the eating, gain self-confidence, and improve social skills [6]. Also, sensory-based feeding intervention was significantly improvements mealtime behaviour in toddlers with food refusal [7].

In general, the swallowing therapy was performed in a therapy room. But this paper, the swallowing therapy was executed on patient's hospital bed. The children's emotional stability was significantly related to problem solving ability [8]. The therapeutic environment in this paper was providing a familiar environment for him, which could be seen to provide emotional stability.

Although the goal of swallowing therapy had been achieved, he belongs to the first stage where he began to eat with his mouth. So, he needs continuous swallowing therapy in order to get a sufficient amount of nutrition through his mouth.

Conclusion

This paper presents is meaningful because it introduces the positive effect of a short-term swallowing therapy on oral intake of child with food problem. Through this paper, it is found that it is necessary to provide swallowing therapy to children with food problems, even if it is short-term.

Acknowledgement

None.

Conflict of Interest

None.

References

1. Field D, Garland M, Williams K (2003) Correlates of specific childhood feeding problems. J Paediatr Child Health 39(4): 299-304.
2. Staiano A (2003) Food refusal in toddlers with chronic diseases. J Pediatr Gastroenterol Nutr 37: 225-227.
3. Johnny L Matson, Christopher L Cooper, Stephen B Mayville, Melissa L González (2006) The relationship between food refusal and social skills in persons with intellectual disabilities. Journal of Intellectual & Developmental Disability 31(1): 47-52.
4. Crist W, Napier Phillips A (2001) Mealtime behaviors of young children: A comparison of normative and clinical data. J Dev Behav Pediatr 22: 279-286.
5. William G Sharp, Valerie M Volkert, Lawrence Scahill, Courtney E McCracken, Barbara McElhanon (2017) A systematic review and meta-analysis of intensive multidisciplinary intervention for pediatric feeding disorders: How standard is the standard of care? J Pediatr 181: 116-124.
6. Ismail K, Hamid SRA (2015) An integrative approach in treating complete food refusal in children: A case study. European Journal of Interdisciplinary Studies 1(1): 50-63.
7. Kim AR, Kwon JY, Yi SH, Kim EH (2021) Sensory based feeding intervention for toddlers with food refusal: A randomized controlled trial. Ann Rehabil Med 45(5): 393-400.
8. Park KM, Woo NH (1997) Relationship between problem solving ability and emotional stability in preschool children. Korean J Child Stud 18(2): 267-282.