

NEURODEVELOPMENTAL AND FEEDING ROUTES AT 24 MONTHS IN CHILDREN WITH OROPHARYNGEAL DYSPHAGIA



Deborah Salle Levy PhD, Fabiola Luciane Barth MSc, Marisa Gasparin MSc, Cláudia Schweiger PhD, Denise Manica PhD, Paulo José Cauduro Maróstica PhD
Programa de Pós-Graduação em Saúde da Criança e do Adolescente, School of Medicine, Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil

BACKGROUND

The prevalence of malnutrition among children with pediatric feeding disorder is 25 to 50%, being higher in those with chronic illness or neurodevelopmental disorders^{1,2}. They may have feeding skills appropriate for their level of development, but not their age.

In the context of children with oropharyngeal dysphagia, an enteral nutrition route, temporary or permanent, can have positive impacts on child's health and neurodevelopment results^{1,3}. In contrast, often the oral route has been prioritized, due to the morbidity related to the gastrostomy tube and the oral aversion favored by the prolonged deprivation of the oral route⁴.

SPECIFIC AIM

To analyze the neurodevelopmental and feeding routes at 24 months in children with oropharyngeal dysphagia.

METHODS

Retrospective review performed using the medical records of the patients, were the children underwent videofluoroscopic swallowing study (VFSS) and were followed up at a hospital outpatient clinic for pediatric dysphagia.

The neurodevelopment status at 24 months was according to clinical diagnosis of pediatrician or pediatric neurologist.

Those children whose medical records were incomplete were excluded.

STATISTICAL ANALYSIS

The variables were described using median and interquartile range (Md (IIQ25-IIQ75)) for continuous variables, and absolute and relative frequencies n(%) for categorical variables. The non-parametric statistical tests used to compare the medians between groups were Mann-Whitney U and Kruskal-Wallis.

RESULTS

The final group was comprised of 55 children (8 (4–15) months). There was a predominance of females (30, 54.5%) and children under the age of 12 months (36, 65.5%) at the time of VFSS.

The prevalence of penetration / aspiration in VFSS was a high. The aspiration were silent in the majority of cases (Table 1).

Table 1. Characteristics of videofluoroscopic swallowing study

VFSS RESULT	n(%)
Penetration	16 (29.09%)
Aspiration	14 (25.45%)
Silent aspiration (n=14)	12 (85.71%)

Older children at the time of the VFSS were receiving exclusive enteral nutrition at 24 months, regarding those children with oral and enteral and those with exclusive oral feeding (p=.034). Among children with enteral nutrition, 15 (68.18%) were gastrostomized. (Table 2)

Older children at the time of the VFSS were diagnosed with neurodevelopmental disorders, compared to the younger ones, in whom prevailed the normal diagnosis (p=.014). (Table 2)

Table 2. Characteristic at 24 month and age at the videofluoroscopic swallowing study

24 MONTH OLD CHILD	n(%)	MONTH AT THE TIME VFSS Md (IIQ25-IIQ75)
NEURODEVELOPMENT		
Age-appropriate	42 (76.36%)	4 (2-5) ^a
Delay	13 (23.63%)	7.5 (4.25-12) ^b
FEEDING ROUT		
Oral	34 (61.81%)	6 (2-11.50) ^c
Enteral	10 (18.18%)	10.5 (5-15.25) ^d
Oral and enteral	11 (20%)	4.(2-6.50) ^e
a x b: p=.014	d x (c +e): p=.034	

CONCLUSION

Late diagnosis by VFSS was related to exclusive enteral nutrition and neurodevelopment disorders at 24 months. For children with neurodevelopment disorders and dysphagia, the growth may not improve as expected the biomechanics of swallowing. The data suggest a severe and adverse diagnosis for effective oral feeding, often with the adoption of gastrostomy.

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