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**Results of Cross-Sectional Study of the Opinion from Parents of Children with Clubfoot on Medical Care via Ponseti Method in Outpatient Center of Surgery, Traumatology and Orthopedics**

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***Background.*** *Patients with clubfoot can have pain and functional disorders that lead to disability. Familiarity of obstetrician-gynecologists, general practitioners, surgeons with its early diagnosis and timely management may prevent disablement.* ***Objective. The aim of the study is to*** *analyze the opinion from parents of children with clubfoot on medical care via Ponseti method in outpatient center of surgery, traumatology and orthopedics.* ***Methods.*** *Cross-sectional study in the form of sociological survey (questionnaire) was carried out in N.F. Filatov Children's City Hospital from March to December 2021 among parents of children with the following diagnoses: congenital bilateral clubfoot, congenital right clubfoot, congenital left clubfoot.* ***Results.*** *Respondents rated the quality of provided medical care and its availability, the hospital stay conditions by 10.0 points on the scale from 0 to 10. Territorial accessibility of medical care was estimated by 9.0 (7.0; 10.0) points, 30 out of 99 respondents (30.3%) required improvement in territorial accessibility (7 points out of 10 and below). Only 36.4% (36 out of 99) of children were sent to N.F. Filatov Children's City Hospital for treatment by doctor of out-patient clinic. Others learned about this variant from the Internet, from acquaintances, etc. 10 out of 15 (15.2%) children with disabilities included in the study had difficulties in learning socially necessary skills. None of 10 children who have been diagnosed antenatally had any difficulties in learning socially necessary skills or disabilities. Mean age of disability was 10.6±7.3 months. Children with disease diagnosed since birth had difficulties in learning socially necessary skills in 7.1% (2 out of 28) cases, and in 13.3% (8 out of 60) cases if diagnosed after birth (p=0.356). Disability did not affect conditions in which children received treatment (14.6% and 20.0% of children under outpatient and inpatient treatment, respectively, had disabilities; p=0.646). 26.7% of children with disabilities and only 11.9% of children without disabilities received treatment in hospital before the treatment (p=0.218). 5.9% of children treated on outpatient basis had difficulties with learning socially necessary skills. Children treated on inpatient basis had difficulties with learning socially necessary skills in 35.7% cases (p=0.005). The choice of outpatient or inpatient treatment did not depend on the presence of spina bifida (p=0.276), children age (2.1 (0.7; 3.6) months vs 3.65 (0.6; 4.975) months, respectively; p=0.309).* ***Conclusion.*** *Treatment can be delayed statistically significantly in case of late diagnosis, which is associated with the observed low awareness of doctors (working by the district principle) about specialized medical care. Ratio of children with disabilities and difficulties in learning socially necessary skills or disabilities is lower among patients with antenatal diagnosis. However, further studies are required for evaluation of these factors' association.*

***Keywords:*** *congenital foot deformity, cavus foot, clubfoot, medical care quality, outpatient forms of medical care, disablement, prenatal diagnosis*

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**Table 1.** Diagnoses of children enrolled in the study

|  |  |  |
| --- | --- | --- |
| **Diagnosis** | ***n*** | **Percent, %** |
| Congenital bilateral clubfoot | 40 | 40,4 |
| Congenital right clubfoot | 30 | 30,3 |
| Congenital left clubfoot | 29 | 29,3 |
| In total | 99 | 100,0 |

**Table 2.** Comorbidities

|  |  |  |  |
| --- | --- | --- | --- |
| **Comorbidities** | **Answers** | | **% of observations** |
| ***n*** | **%** |
| Urogenital anomalies | 8 | 24,2 | 32,0 |
| Central nervous system diseases | 7 | 21,2 | 28,0 |
| Upper and lower limb malformations | 6 | 18,2 | 24,0 |
| Prematurity | 1 | 3,0 | 4,0 |
| Facial skull defects | 2 | 6,1 | 8,0 |
| Eye disorders | 2 | 6,1 | 8,0 |
| Autism | 1 | 3,0 | 4,0 |
| Peripheral nervous system diseases | 2 | 6,1 | 8,0 |
| Hepatobiliary system diseases | 2 | 6,1 | 8,0 |
| Haemangiomas | 1 | 3,0 | 4,0 |
| Anterior abdominal wall malformations | 1 | 3,0 | 4,0 |
| In total | 33 | 100,0 | 132,0 |

**Table 3.** How did you know about the possibility of treatment at N.F. Filatov Children's City Hospital?

|  |  |  |
| --- | --- | --- |
| **Answer** | **Frequency** | **%** |
| Sent by primary care physician | 36 | 36,4 |
| Internet | 30 | 30,3 |
| Recommendation of acquaintances | 27 | 27,3 |
| Sent by doctor from private health care facility | 2 | 2,0 |
| Ponseti association | 1 | 1,0 |
| Child was hospitalized in N.F. Filatov Children's City Hospital | 2 | 2,0 |
| TV | 1 | 1,0 |
| In total | 99 | 100,0 |

**Table 4.** Percent of children with disabilities by the time of diagnosis

|  |  |  |  |
| --- | --- | --- | --- |
|  | **When disease was diagnosed?** | | |
| **Antenatally, *n* (%)** | **Since birth, *n* (%)** | **Later, *n* (%)** |
| No disability | 10 (100) | 24 (85,7) | 49 (81,7) |
| Disability | 0 (0) | 4 (14,3) | 11 (18,3) |
| In total | 10 | 28 | 60 |

**Table 5.** Difficulties in learning socially necessary skills and medical care

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | | **How have you been managed previously?** | | **In total** |
| **Outpatiently** | **In hospital** |
| Do your child have difficulties in learning socially necessary skills? | No | Quantity, *n* | 80 | 9 | 89 |
| Ratio, % | 94,1 | 64,3 | 89,9 |
| Yes | Quantity, *n* | 5 | 5 | 10 |
| Ratio, % | 5,9 | 35,7 | 10,1 |
|  | In total | Quantity, *n* | 85 | 14 | 99 |
| Ratio, % | 100,0 | 100,0 | 100,0 |

**Table 6.** Preferences in the form of medical care and current form of treatment

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **What treatment conditions do you prefer?** | | **Form of treatment** | | **In total** |
| **Outpatiently** | **In hospital** |
| Outpatiently | Quantity, *n* | 88 | 1 | 89 |
| Ratio, % among the preferred forms of treatment | 98,9 | 1,1 | 100,0 |
| Ratio, % among treatment forms | 98,9 | 10,0 | 89,9 |
| In hospital | Quantity, *n* | 1 | 9 | 10 |
| Ratio, % among the preferred forms of treatment | 10,0 | 90,0 | 100,0 |
| Ratio, % among treatment forms | 1,1 | 90,0 | 10,1 |
| In total | Quantity, *n* | 89 | 10 | 99 |
| Ratio, % among the preferred forms of treatment | 89,9 | 10,1 | 100,0 |
| Ratio, % among treatment forms | 100,0 | 100,0 | 100,0 |

**Table 7.** Preferences in the form of medical care and a form of treatment before the start of observation in outpatient center of surgery, traumatology and orthopedics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **What treatment conditions do you prefer?** | | **How were you treated previously?** | | **In total** |
| **Outpatiently** | **In hospital** |
| Outpatiently | Quantity, *n* | 84 | 5 | 89 |
| Ratio, % among the preferred forms of treatment | 94,4 | 5,6 | 100,0 |
| Ratio, % among previous treatment forms | 98,8 | 35,7 | 89,9 |
| In hospital | Quantity, *n* | 1 | 9 | 10 |
| Ratio, % among the preferred forms of treatment | 10,0 | 90,0 | 100,0 |
| Ratio, % among previous treatment forms | 1,2 | 64,3 | 10,1 |
| In total | Quantity, *n* | 85 | 14 | 99 |
| Ratio, % among the preferred forms of treatment | 85,9 | 14,1 | 100,0 |
| Ratio, % among previous treatment forms | 100,0 | 100,0 | 100,0 |

**RESEARCH LIMITATIONS**

The limitation of our study is the small sample size (n=99).

Moreover, the questionnaire regarding treatment satisfaction was performed in the same institution where this treatment was performed. Thus, it could have indirect effect on the respondents’ answers.

**FINANCING SOURCE**

Not specified.

**DISCLOSURE OF INTEREST**

Not declared.