

## 6. CHEST MALFORMATIONS IN CHILDREN. SCIENTIFIC RESEARCH.

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**Introduction.** Chest malformations in children (CMC) can be divided into two types - primary, also called congenital, have a multifactorial etiology, and secondary or acquired: (post-traumatic), iatrogenic and syndromal (due to Marfan syndrome, Ehlers-Danlos syndrome, etc.), all together appear, according to various authors, in 2-7% of the population. Congenital malformations of the chest wall can be classified into more frequent entities such as pectus excavatum (PE) representing 90% and pectus carinatum (PC) - 7%, and rare entities such as cleft sternum, asphyxiating thoracic dystrophy (Jeune syndrome), Poland syndrome and spondylothoracic dysplasia (Jarcho-Levin syndrome), accounting for 3-4% of all cases. Congenital CMCs can occur from birth and become evident in childhood or early adolescence, affecting 1 in 400 to 1 in 1,000 children, in boys it is 4 times more common than in girls.

**Aim of study.** To figure out what is the age group and sex, more often subjected to surgical correction (thoracoplasty) with chest malformations in children and adolescents.

**Methods and materials.** Retrospective study: 42 operated patients with chest malformations in the Department of Orthopedics, Traumatology and Vertebrology, National Scientific-Practical Centre Department for Pediatric Surgery "Academician Natalia Gheorghiu", IMSP Mother and Child Institute, 2017-2021. The following parameters were analyzed: sex, age, type of chest malformation and type of surgery.

**Results.** The data of 42 studied patients were as follows: distribution by type of chest malformation - primary PE - 35 (83.33%) patients, PC-6 (14.28%) patients, secondary PE 1 (2.38%) patients. Distribution of patients by sex: PE primary- boys 28 (80.00%), girls 7 (20.00%); PC - boys 5 (83.33%), girls 1 (16.66%); PE secondary- 1 boy. Distribution of patients by age: PE primary- from 6 to 10 years- 2 (5.71%); from 11 to 15 years - 30 (85.71%); from 16 to 18 years - 3 (8.57%) patients. PC- from 6 to 10 years- 1 (16.66%); from 11 to 15 years- 4 (66.66%); from 16 to 18 years - 1 (16.66%) patients.

**Conclusion.** Most patients with chest malformations were in the 11 to 15 age group. This is due to the active growth during puberty, accompanied by a pronounced manifestation of skeletal deformities. In all groups, the highest number of boys in relation to girls was noted.