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pod tytułem

Urazowe obrażenia w zakresie kończyn u dzieci i młodzieży. Wybrane aspekty epidemiologiczne, medyczne i ekonomiczne

ABSTRACT

Introduction: Traumatic injuries of the musculoskeletal system represent a significant issue in pediatric surgery due to the resulting health risks and the potential for disability among pediatric and adolescent populations. Epidemiological data from multiple European and global sources unequivocally demonstrate that injuries are associated with the occurrence of chronic pain syndromes, restricted functional capacity, and limb dysfunctions. Notably, trauma to the upper and lower extremities has been infrequently addressed in the scientific literature over recent decades. The objective of the series of six published studies constituting the foundation for this dissertation is a comprehensive analysis of the epidemiological, clinical, and economic aspects of musculoskeletal trauma in children and adolescents.

Material and Methods: The doctoral dissertation is based on a retrospective analysis of clinical data from pediatric patients treated for musculoskeletal trauma. In the Department of Pediatric Surgery at Stefan Żeromski Specialist Hospital in Kraków, 1,382 children were hospitalized for upper and lower limb injuries between 2012 and 2023. Analyses included patient age, gender, circumstances of injury, injury type, and concomitant damages, stratified into four age cohorts. Furthermore, clinical and radiological

treatment outcomes were assessed in 924 patients. The direct costs of managing musculoskeletal trauma were determined in a subset of 529 patients, utilizing the Diagnosis-Related Groups (DRG) system, and compared with those of selected common general surgical procedures.

Results: Musculoskeletal injuries accounted for 68% of all trauma-related hospitalizations. The predominant mechanisms of injury were same-level falls (40%) and falls from a height (26%). Among the studied cases, 36% of injuries occurred in domestic environments, 29% within school premises, and 16% during sports activities. Good to very good functional and radiological treatment outcomes were obtained in 88% of patients. Hospitalization and treatment costs related to musculoskeletal trauma represented 56% of all procedural expenditures in the department.

Conclusions: Musculoskeletal injuries were the most frequent cause of hospitalization in pediatric and adolescent groups within the department. The majority of injuries occurred in domestic and school settings or their surroundings. Good or very good therapeutic outcomes were achieved in 88% of treated patients. Treatment costs accounted for 56% of all executed procedures in the department. The ongoing incidence and sequelae of trauma highlight the necessity for the establishment and implementation of preventive and educational programs targeted at parents, guardians, teachers, and pediatric populations.