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Septic Arthritis of Facet Joint in Children: A Systematic Review and a 10-year Consecutive Case Series
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Abstract
Background: Due to the low resolution of historical imaging technologies, descriptions of Septic Arthritis of Facet Joint (SAFJ) in children are scarce, though severe cases are known. We first aimed to estimate the incidence rate of SAFJ in children; we further aimed to specify SAFJ clinical, imaging and laboratory findings, and identify avenues for appropriate management. Methods: A 10-year consecutive SAFJ case series using our imaging center database combined with a 50-year systematic review of literature cases. Results: The mean ± SD incidence of pediatric SAFJ was 0.23 ± 0.4/100,000 children-years. The key symptoms were potty refusal (in toddlers) or painful sitting (78%) and lateralized signs (paravertebral tenderness and/or swelling, 88%). SAFJ diagnosis and extension were obtained using magnetic resonance imaging (MRI) (94%), and found an epidural extension in 8/16 cases. The mean duration of antibiotic treatment was 5.1 weeks. The compliance with guidelines was 79% for empiric and 62% for targeted antibiotic therapies. Conclusions: SAFJ incidence in children is much greater than expected from the literature. Half of cases were complicated by an epidural infection. Simple clinical symptoms detected as early as the bedside allow a strong suspicion of SAFJ, justifying the use of a first-line MRI to confirm the diagnosis and precisely describe the extension. Focusing on simple clinical signs is key to justify the transfer of a child or the shortening of the delay to obtain an MRI. However, as MRI availability increases in most Western countries, and the capacity for diagnosis increases, the awareness of SAFJ must be spread to avoid missed cases. © 2021 Georg Thieme Verlag. All rights reserved.

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