Septic Ankle Joint of Unknown Cause in a Pediatric Patient

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Case Study

A 5-year-old patient with no pertinent past medical history initially presented to clinic with pain in his ankle of an duration of 5 days. The pain occurred at night and was not related to physical activity or trauma. The patient was initially treated with ibuprofen, but the pain persisted and the patient was referred to our clinic for further evaluation. On examination, the ankle was erythematous and taut. At this point, the joint capsule was incised. A small dose of neostigmine along with the antibiotics improved the overall outcome (1,3). There is no existing report describing the atypical presentation and atypical findings throughout the pediatric population.

The goal of this study was to bring light to a topic less prevalent in the literature, but to also discuss an effective approach to the sterile septic joint in the pediatric population.

Septic joints, including but not limited to the pediatric population, have been described throughout literature with known causes from various microorganisms. It can be detrimental to the pediatric joint if not treated appropriately. In a study by et al. (2014), 100% of the patients who received an MRI for septic joints had positive (2). Open arthroscopy is considered the gold standard to surgical intervention, and in our case, proved to be successful in resolving the problem. A recent study by Thompson et al. evaluated the effectiveness of arthroscopic treatment for a septic joint in the pediatric population in a small sample size (10). They found that the arthroscopic approach successfully resolved infections with only two needing further surgical intervention in 10. In our case, we utilized an MRI to confirm clinical suspicion and proceeded to perform an open arthrotomy to decompress and drain the joint.

The incidence of sterile septic arthritides seen in the pediatric population was reported to be 10% in a study by et al. (2014). Our approach to the sterile septic joint was successful in our patient, and the patient was subsequently discharged from inpatient status. At his outpatient follow up 3 days later, his pain had improved significantly and he was able to bear weight on the operative limb with cough assistance. He then progressed over the next two weeks and resumed his normal activities.

Discussion

Septic joints, including but not limited to the pediatric population, have been described throughout literature with known causes from various microorganisms. It can be detrimental to the pediatric joint if not treated appropriately. In a study by et al. (2014), 100% of the patients who received an MRI for septic joints had positive (2). Open arthroscopy is considered the gold standard to surgical intervention, and in our case, proved to be successful in resolving the problem. A recent study by Thompson et al. evaluated the effectiveness of arthroscopic treatment for a septic joint in the pediatric population in a small sample size (10). They found that the arthroscopic approach successfully resolved infections with only two needing further surgical intervention in 10. In our case, we utilized an MRI to confirm clinical suspicion and proceeded to perform an open arthrotomy to decompress and drain the joint.

Conclusion

This case study describes the clinical and surgical findings as well as the pathological and microbiological results in a pediatric patient diagnosed with a sterile septic ankle joint. The MRI with contrast was performed and revealed increased signal throughout the joint consistent with a sub-patellar abscess and cellulitis. The patient was admitted to the hospital that same day. The patient was initially treated with oral antibiotics, but the pain persisted and the patient was referred to our clinic for further evaluation. On examination, the ankle was erythematous and taut. At this point, the joint capsule was incised. A small dose of neostigmine along with the antibiotics improved the overall outcome (1,3). There is no existing report describing the atypical presentation and atypical findings throughout the pediatric population.

REFERENCES