Necrotizing fasciitis due to panresistant Acinetobacter baumannii after tibial plateau fixation in a female drug addict

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Introduction

Necrotizing fasciitis is a devastating condition with a very high mortality rate demanding urgent therapeutic approach. It is caused by flesh eating bacteria that can spread rapidly to deep tissues causing major nerve and muscle damage. Reduced oxygenation of the injured tissue along with poor function of polymorphonuclear leukocytes allows the proliferation of aerobic microorganisms and a rapid progression of the infection. Acinetobacter baumannii is a gram negative bacterium, it is becoming increasingly important as a nosocomial infection. There are very few cases reporting an infection of orthopaedic hardware with Accinetobacter baumannii, the majority of which is referring to combat trauma during military operations.







Materials & Methods

We report a case of a 54 year old female patient, former drug addict, that sustained a Schatzker type VI tibial plateau fracture, for which she was operated in our department. Her postoperative course was uneventful and so she was discharged without any complications. Nevertheless she failed to show up for the scheduled follow up appointment, due to numerous visits of a relative in the ICU. After 6 months she presented in our emergency department with a severe infection of the left tibia, purulent drainage of the surgical wound and systemic signs of sepsis. She was immediately submitted to a broad surgical debridement, hardware removal and broad spectrum antibiotic coverage (meropenem and colistin). The culture and histopathology results of the soft tissue collected intraoperatively showed necrotizing fasciitis caused by panresistant Acinetobacter baumannii. After multiple surgical debridements, that failed to eradicate the infection and after taking into consideration the remarkable virulence of the pathogen as well as the deterioration of the patients condition we proceeded to an above knee amputation.





Conclusion

An extremely difficult decision lies before an orthopaedic surgeon who has to propose the sacrifice of a patients limb in order to save her life. Knowing that there are no favourable outcomes after long lasting surgical attempts to salvage a limb infected with panresistant Accinetobacter baumannii, an early definitive solution seems to be by default the only method able to insure the patients survival.



Results

Postoperatively the patient showed immediate improvement of the clinical condition, normalization of CRP, ESR as well as WBC count. No bacteria were detected in the blood or surgical site culture. After wound closure the attachement of a prosthetic limb was arranged. 9 months post surgery the patient showed no signs of infection or postoperative complications