

Sp72: What are the indications for repeat surgical interventions for debridement, in cases of persistent or recurrent infection?

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Recommendation: Based on the available literature, persistent or recurrent post-operative spinal infection may warrant repeat surgical debridement when located deep to the fascia and yields purulent drainage, abscess formation, wound dehiscence, and/or necrotic tissue in the wound bed. Additional factors that may prompt repeat debridements include infection with high virulence organisms and late diagnosis.

Level of Evidence: Low

Delegate Vote:

Rationale: Given the potential destructive nature of post-operative spinal infections, prompt care with debridement and antibiotic therapy should be initiated. Some cases, however, warrant more aggressive treatment than others, requiring multiple debridements before delayed wound closure. Clinical factors indicative of repeat surgical debridement for post-operative spinal infections include the presence of purulent drainage, abscess, dehiscence, or necrotic tissue in the wound bed [1-6]. Conversely, absence of necrosis and the presence of granulation tissue, indicative of healing, should prompt closure of the wound without further debridements [7].

In addition to clinical presentation, the etiological pathogen should be considered when determining possible need for repeat debridements. Post-operative spinal infections with MRSA or multiple bacteria are more likely to be severe and require repeated irrigation and debridement [8]. Previous literature reported aggressive pathogens as a primary driver of repeat debridements, despite an overall low incidence of MRSA in the study population [2]. This is not to say that infection with MRSA or multiple bacteria always warrant serial debridements, but rather that close monitoring for the aforementioned clinical factors should occur, and physicians should be prepared for potential surgical intervention.

Another factor that may indicate need for serial debridements is late diagnosis of the infection. Indolent post-operative infection may go unnoticed for some time, especially given the vague nature of accompanying symptoms (fever, pain, etc.) that may be attributed to other causes [1]. This allows the bacteria time to replicate, resulting in a more severe infection at the time of diagnosis.

It is important to note that this recommendation pertains to infection located deep to the fascia, and superficial infections may not require the same aggressive treatment [1]. In a retrospective study including five cases of acute superficial infection, all infections resolved following a single surgical debridement [1].

References:

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