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Titel des Beitrags:
Procalcitonin ratio as a predictor of successful surgical treatment of severe necrotizing soft tissue infections.

Abstract:
Necrotizing soft tissue infections often are characterized by fulminant presentation and lethal outcomes. Besides critical care support and antibiotic therapy, aggressive surgical treatment is important for the therapy of necrotizing fasciitis. The aim of this study was to develop a procalcitonin (PCT) ratio indicating successful surgical intervention. The study group consisted of 38 patients treated with clinical signs of sepsis caused by a necrotizing soft tissue infection. All patients received radical surgical treatment, and serum levels of PCT and C-reactive protein were monitored postoperatively. The ratio of day 1 to day 2 was calculated and correlated with the successful elimination of the infectious source and clinical recovery. An eradication of the infectious focus was successfully performed in 84% of patients, averaging 1.9 operations (range 1 to 6) to achieve an elimination of the infectious source. The PCT ratio was significantly higher in the group of patients with successful surgical intervention (1.665 vs .9, P< .001). A ratio higher than the calculated cutoff of 1.14 indicated successful surgical treatment with a sensitivity of 83.3% and a specificity of 71.4%. The positive predictive value was 75.8%, and the negative predictive value was 80.0%. The PCT ratio of postoperative day 1 to day 2 following major surgical procedures for necrotizing soft tissue
infections represents a valuable clinical tool indicating successful surgical eradication of the infectious focus.