

The Potential Prognostic Significance of the Laboratory Risk Indicator for the Necrotizing Fasciitis (LRINEC) Score in Necrotizing Fasciitis

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Abstract

Background: We discuss the role of Laboratory Risk Indicator for the Necrotizing Fasciitis (LRINEC) on the prognosis of this disease. Necrotizing Fasciitis (NF) is characterised by rapid spreading of infection and necrosis of the soft tissues and fascia.

Methods: Thirty patients (17 male, 13 female, mean age 57.5 years) were treated between 2011-2016 (in our center); they were analysed retrospectively regarding age, sex, isolated microbiological agents, modalities of treatment and mortality rate.

Results: The majority of the infections were detected in the perineum (14 patients). Other sites of infection were: the presacral region (3 patients), as well as abdominal region after elective (10 patients) and emergency surgery (2 patients), respectively. 53.3% of patients had at least one predisposing comorbid factor such as diabetes mellitus, hypertension, cardiomyopathy and congestive heart failure. The tissue cultures were positive in 12 patients. Mean LRINEC score on admission was 8.5 ± 2.85 . There was a strong correlation between LRINEC score and patient age ($p=0.018$, $R=0.43$). LRINEC score was affected by neither gender nor the presence of any comorbidities. The patients were classified according to Wang and Wong staging system, as follows: one patient in stage 1, 15 patients in stage 2 and 14 patients in stage 3. Patients with higher Wang and Wong stages had significantly higher LRINEC scores. The mortality rate was 16.7%. The mean LRINEC score of deceased patients compared to patients who were successfully treated was 9.2 ± 2.2 and 8.36 ± 2.9 .

Conclusion: Even though LRINEC score and Wang and Wong stage were significantly related with ICU stay, their direct effect on mortality wasn't significant in our study.

Key words: necrotizing fasciitis, laboratory risk indicator for necrotizing fasciitis, Wang and Wong stages, treatment of necrotizing fasciitis