Abstract

Introduction: procalcitonin (PCT) is a marker whose utility for the diagnosis of bacterial infections has been demonstrated. Since some types of surgery (for example heart surgery) induce PCT liberation, further studies are needed in order to assess its utility in those circumstances. Objective: to assess the ability of PCT (with a cut point of PCT > 2 ng/ml) to discriminate between systemic inflammatory response syndrome (SIRS) with sepsis and without sepsis during the early post-operative period. Methods: 119 patients who developed SIRS during the first 72 hours after surgery were assessed. Measurements of semiquantitative serum PCT were performed, and follow-up up the patients’ clinical evolution was carried out in order to classify their condition as septic SIRS or non-septic SIRS, according with the sepsis protocol of the Cardio-Infantil Foundation. Results: the sensitivity and specificity of PCT for diagnosing sepsis in the postoperative setting were, respectively, 28% and 68%. The overall mortality was 11.7% with an odds ratio of 5.2% (IC 1.42-19.86). Discussion: the demographic characteristics of the population reflect institutional characteristics and statistics. The results probably differ from those reported in the literature due to the use of semiquantitative procalcitonin and non LUMI-test®, in addition to the types of surgery included. These observations must be confirmed by further studies. Conclusion: semiquantitative procalcitonin levels are not clinically useful for discriminating between septic SIRS and non-septic SIRS during the early postoperative period.

Keywords

Procalcitonin, sepsis, postoperative, extracorporeal circulation.