

MEETING ABSTRACT

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Prognostic value of PCR, IL-6 and IL-10 serum levels in determining postoperative complications after geriatric surgery in diabetic patients

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Background

The onset of postoperative septic complications has been associated to serum levels of interleukin (IL) IL-6 and IL-10. [1,2]. We have extrapolated a diabetic group from a previous study to evaluate pre and postoperative profiles of some inflammatory markers (IL-6, IL-10 and CRP). We related the data obtained to the onset of postoperative complications. Diabetic patients have been selected because of their high rate of post-operative complications, especially surgical wound infection.

Materials and methods

We evaluated 15 patients, 6 males and 9 females, aged ≥ 70 (range 70-83). The preoperative criterium for inclusion was non urgent major abdominal surgery and a diabetes diagnosis, the exclusion criteria were: urgent abdominal surgery, therapy with steroid and/or immunosuppressor drugs during the 30 days before admission. For each patient we collected three peripheral venous blood samples, at preoperative time 0 (t0), and then at first (t1) and seventh (t2) postoperative day. Cytokine evaluation was obtained by the ELISA method with the "sandwich" technique. Among the latter we considered: surgical wound infection; urinary tract infection; respiratory infection / respiratory failure; SIRS and/or sepsis; anastomotic leakage; peritonitis.

Results

We observed 4 complications corresponding to 26,6% of all evaluated patients (Table 1).

Table 1

POSTOPERATIVE COMPLICATIONS	N
Anastomotic leakage	1
Respiratory failure	1
Urinary tract infection	1
Respiratory infection	1

All subjects at (t1) showed an elevation of IL-6 levels, more consistent in the complicated ones (140.25 ± 100.89 pg/ml vs 91.54 ± 31.75 pg/ml) (Figure 1). IL-1 showed lower basic levels (t0) in complicated patients (14.54 ± 12.64 pg/ml vs 12 ± 10.70 pg/ml) and also in (t1) ($26,36 \pm 31,43$ pg/ml vs $14,75 \pm 7,41$ pg/ml) (Figure 2). The CRP values didn't differ at any time between the two groups (Figure 3).

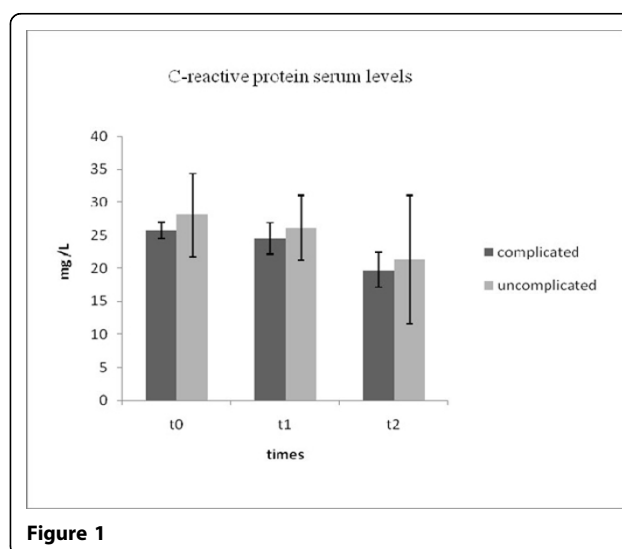


Figure 1

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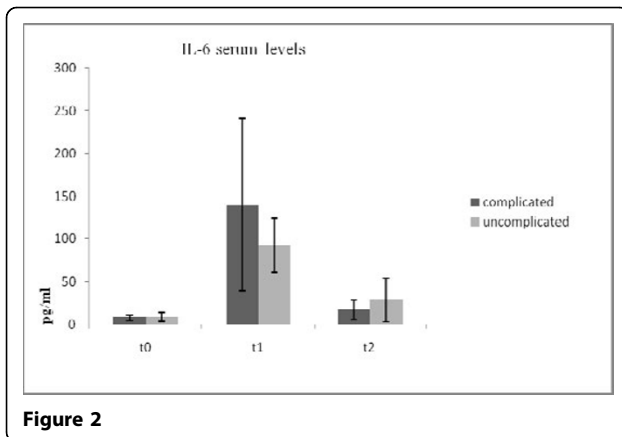


Figure 2

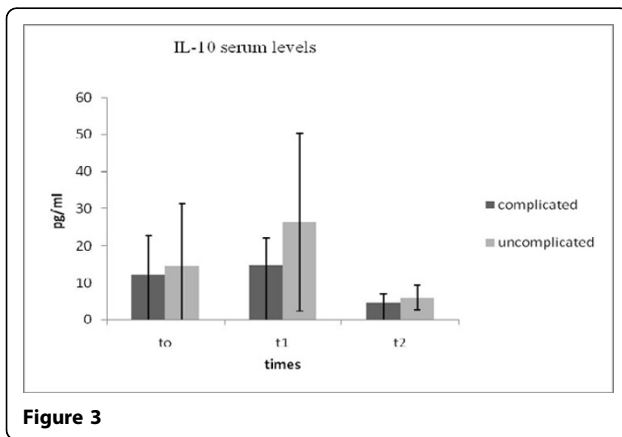


Figure 3

Conclusions

In the group of elderly diabetic patients observed, so as in the general population, according to published data [1], IL-6 and IL-10 may be referred as prognostic markers with regard to postoperative complication. It would be moreover useful to identify a cut-off value to select the subjects with a higher postoperative risk.

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