

The Value of C Reactive Protein and the Leukocytes in the Peritoneal Fluid in the Predicting Postoperative Digestive Fistulas

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Abstract

Introduction: Anastomotic fistulas in digestive surgery are a severe complication of the patient. The identification of paraclinical laboratory investigations which would allow an early diagnosis of fistulas would lead to the optimization of patient's management.

Methods: We have performed a retrospective study on 100 cancer patients, with digestive tract surgeries, between May 2016 and December 2017, in the First Clinic of General surgery and Surgical Oncology from the Bucharest Oncology Institute. The postoperative follow-up included: the testing of the C reactive protein (CRP), and also the monitoring of the number of leukocytes (Ld) from the abdominal cavity, with probes taken from the drainage tube, all in association with the number of leukocytes in the blood (Ls) in all patients (with or without digestive fistula). By calculating the values of these tests and comparing them always with the clinical evolution of the patients, and sometimes with other tests as well, one would confirm an early diagnosis of fistula.

Results: The data obtained have shown that in patients with digestive fistulae there is a rapid growth and maintaining of increased values of serum PCR and of the leukocytes from the peritoneal cavity, values to which we associated also an increase in blood leukocytes. The modifications appear with approx. two days before the appearance of clinical signs or their confirmation through imagery (ultrasound, computed tomography).

Conclusions: The regular and standardized follow-up in days 1, 3 and 5 postoperatively of the PCR value in blood, of the number of leukocytes in the abdominal cavity and of the serum leucocytosis, increasing the value of these parameters, could allow the early identification of the patients with a risk of fistula and the rapid selection of those which need supplementary investigations and/or surgical intervention.

Key words: C reactive protein, peritoneum leukocytes, leukocytosis, digestive surgery, postoperative complications, anastomotic fistula