Chirurgia (Bucur). 2013;108(5):689-694

Minilaparotomy as Surgical Approach for Aortoiliac Occlusive Disease - Single Center Initial Experience

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Abstract

Purpose: The purpose of this study was to emphasize the benefits and indications of performing minilaparotomy as surgical approach for occlusive aortoiliac disease.

Material and Method: From January 2011 to July 2012, a total of 23 patients (19 men and 4 women), with a median age of 60 years (range 49-75) diagnosed with aortoiliac occlusive disease (n=22) or abdominal aneurysm (n=1), were included in a retrospective non-randomized clinical study. Among these patients 11 underwent aortic bypass procedure by minilaparo-tomy approach (ML group) and 12 patients by standard laparotomy (SL group). Demographic and clinical data, operative data, postoperative recovery data and complications were analysed according to these two groups of patients. Follow-up consisted of clinical examination and duplex scanning at 1, 3, 6 and 12 months postoperatively.

Results: There were no significant differences between the minilaparotomy and standard laparotomy control groups concerning clinical and demographical data. Two surgical conversions to standard laparotomy were necessary (18.18%) in the ML group due to technical difficulties. The mean operative time was shorter in the ML group (124±22 minutes) and the mean aortic clamping time was similar between the two groups. Major differences between the two lots were observed post-operatively; mean blood loss was more important in the SL group (550 ml) than in the ML group (350 ml) (statistical significance p=0.001, Student test). Patients who have undergone standard laparotomy required more fluids (10000 ± 2000 ml) in comparison to the other group (6000±1000 ml) – p value=0.0001, while the duration of nasogastric suction and period before resuming a liquid diet was both shorter in the ML group (1.1±0.5 days) than those from the SL group (2.5±0.6 days) – p value=0.001. The period spent in the ICU was significantly shorter for the ML lot of patients and the median hospitalization time was 5.6 days for patients in ML group, whereas in the SL group the median hospitalization time was 8.9 days (Student test - p value 0.01). We had no 30-day mortality in any of the groups included in the study. One patient from the ML group was readmitted in postoperative day 43 and re-operated on for a prosthetic limb graft thrombosis. Two patients were lost to follow-up and the mean follow-up was 9±1.5 months.

Conclusions: Minilaparotomy as surgical approach for aortic diseases is a feasible, safe procedure on selected patients.

Key words: minilaparotomy, aortoiliac occlusive disease, aortobifemural bypass, morbidity

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