P022 Spinal vs. general anaesthesia during retrograde intra-renal surgery: A propensity score-matching analysis

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Introduction & Objectives: The indications for retrograde intra renal surgery (RIRS) have widely increased; however, there is still no consensus about the use of spinal anaesthesia during this procedure. The aim of this study is to compare the feasibility of RIRS performed under spinal anaesthesia (SA) versus general anesthesia (GA).

Materials & Methods: This is a prospective, observational study; patients scheduled for RIRS at our Institution were included. Inclusion criteria were age ≥ 18 years, single or multiple renal stones with a stone burden ≤30 mm. Stone characteristics and urinary tract were studied either by an abdominal CT scan or the combination of abdominal US and abdominal X-ray. We recorded information concerning the site, number of calculi and the total stone burden. The presence of concomitant ureteral stones or hydronephrosis was also evaluated. A propensity score-matching analysis was performed to evaluate the results in terms of surgical outcome, intraoperative and postoperative complications and analgesia demand. Patients were followed-up for 90 days after discharge. Statistical analyses were performed using SPSS. v.23 (IBM Corp., Armonk, NY, USA).

Results: From December 2016 to March 2018, 120 patients were enrolled in this study. Propensity score-matching yielded two homogeneous groups of 40 patients. No meaningful differences were observed between the groups. No cases of conversion from spinal to general anaesthesia were recorded. We observed no significant differences in operative time (p=0.17) and occurrence of intraoperative bleeding, accidental perforation and surgical procedure abortion. Radioscopy time was slightly shorter in patients receiving SA (p=0.043). There were no differences in the number of postoperative complications (p=0.64), need for analgesia rescue doses and hospital length of stay. The stone-free rate at 30-days and number of auxiliary procedures at 90-days did not differ between SA and GA groups. Complete results are shown in the table.

Conclusions: We can affirm that RIRS for stones under GA and SA are equivalent in term of results and complications.