

Transmesocolic Pyeloplasty: Single Centre Experience

Introduction and Objective: Laparoscopic pyeloplasty as replaced open procedure for the treatment of UPJ Obstruction. Left-sided laparoscopic pyeloplasty requires extensive mobilization of descending colon in order to expose the UPJ. This maneuver adds to increased morbidity and duration of surgery. Identification and mobilization of UPJ through a small mesocolic window definitely decreases both of them. We present our experience with this procedure.

Material and Methods: A total of 132 laparoscopic pyeloplasties were performed between 2004 to date. The distribution was 70 left sided vs 54 on the right side and 8 were pelvic kidneys. The age varied from 3 years to 62 years. Transmesocolic pyeloplasty was performed on 38 (40) occasions. Patients with thin mesocolon, well-identifiable pelvis and ureter thorough mesocolon, colon tucked away laterally and no major mesocolic vessels hindering anastomosis were selected for transmesocolic procedure. Patients with a lot of fat in the mesocolon, cephaladly placed renal pelvis, associated renal calculi, over hanging colon and obstructing mesocolic vessels were done the traditional way. Standard lateral position and three-port approach was selected in all. Pelvis UPJ and upper ureter were mobilized through a mesocolic window. Lower polar vessels if encountered were transposed posteriorly. Anastomosis was performed with either 4 O or 5 O vicryl sutures. Double J stent was placed will anti grade fashion. Mesocolic rent was closed with a tube drain. Stent removal was performed three weeks postoperatively.

Results: All procedures were uneventful. Transmesocolic anastomosis was possible in 38 of 40 cases attempted. Conversion into the traditional way was required in two cases in view of difficulty encountered with mesocolic vessels. One patient required re-positioning of DJ stent ureteroscopically. One patient required re-insertion of DJ stent two months postoperatively for obstructed drainage. Duration of procedure in transmesocolic pyeloplasty was shorter by an average of 35 minutes when compared to the traditional way. Duration of postoperative ileus was much shorter.

Conclusion: Transmesocolic pyeloplasty is an excellent procedure to correct left sided UPJ obstruction in selected cases. It significantly decreases the operating time and morbidity. It is quite safe in selected cases and expert hands.