

Extraperitoneal laparoscopic dismembered fibrin-glued pyeloplasty: Medium-term results.

Authors: Eden C.G., Sultana S.R., Murray K.H.A., Carruthers R.K.

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Abstract:

Objective. To assess the feasibility and results of performing retroperitoneoscopic dismembered fibrin-glued pyeloplasty in a clinical series of patients with pelvi-ureteric junction (PUJ) obstruction.

Patients and methods. A balloon-dissecting four-port extraperitoneal laparoscopic approach was used in each of nine patients (aged 21-60 years) to dismember the PUJ over a previously placed double-pigtail stent, insert stay sutures to appose the urothelium and complete the pelvi-ureteric anastomosis using fibrin glue. Anastomoses were assessed by diuresis renography 3 months after surgery and at yearly intervals thereafter.

Results. Eight of the nine attempted procedures were completed successfully in a median (range) operating time of 180 (150-230) min. The median (range) post-operative parenteral opiate requirement was 0 (0-80) mg morphine sulphate and the post-operative hospitalization was 2 (2-4) nights. A shortened fibrotic ureter prevented the laparoscopic completion of the second case, which was converted to an open procedure. Follow-up imaging after 1-2 years showed satisfactory upper tract drainage in those cases completed successfully. One patient developed a renal pelvic calculus that was treated by extracorporeal shock wave lithotripsy.

Conclusion. This technique is associated with significantly shorter operating time than historical laparoscopic controls, and with a significantly lower post-operative opiate analgesic requirement and shorter post-operative hospitalization than in contemporaneous series of patients undergoing open pyeloplasty. However, longer term follow-up is needed to fully assess the performance of these anastomoses.