

VIDEOLAPAROSCOPIC CATHETER PLACEMENT REDUCES CONTRAINDICATIONS TO PERITONEAL DIALYSIS

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◆ **Background:** Videolaparoscopy is considered the reference method for peritoneal catheter placement in patients with previous abdominal surgery. The placement procedure is usually performed with at least two access sites: one for the catheter and the second for the laparoscope. Here, we describe a new one-port laparoscopic procedure that uses only one abdominal access site in patients not eligible for laparotomic catheter placement.

◆ **Method:** We carried out one-port laparoscopic placement in 21 patients presenting contraindications to blind surgical procedures because of prior abdominal surgery. This technique consists in the creation of a single mini-laparotomy access through which laparoscopic procedures and placement are performed. The catheter, rectified by an introducer, is inserted inside the port. Subsequently, the port is removed, leaving the catheter in pelvic position. The port is reintroduced laterally to the catheter, confirming or correcting its position. Laparotomic placement was performed in a contemporary group of 32 patients without contraindications to blind placement. Complications and long-term catheter outcome in the two groups were evaluated.

◆ **Results:** Additional interventions during placement were necessary in 12 patients of the laparoscopy group compared with 5 patients of the laparotomy group ($p = 0.002$). Laparoscopy documented adhesions in 13 patients, with need for adhesiolysis in 6 patients. Each group had 1 intra-operative complication: leakage in the laparoscopy group, and intestinal perforation in the laparotomy group. During the 2-year follow-up period, laparoscopic revisions had to be performed in 6 patients of the laparoscopy group and in 5 patients of the laparotomy group ($p = 0.26$). The 1-year catheter survival was similar in both groups. Laparoscopy increased by 40% the number of patients eligible to receive peritoneal dialysis.

◆ **Conclusions:** Videolaparoscopy placement in patients not eligible for blind surgical procedures seems to be equivalent

to laparotomic placement with regard to complications and long-term catheter outcome. The number of patients able to receive peritoneal dialysis is substantially increased.

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Videolaparoscopy (VLS) is increasingly being considered the reference for peritoneal dialysis (PD) catheter rescue as well as for placement (1–3). Several VLS techniques for catheter placement have been developed. Most use at least two accesses to the abdominal cavity: one for the PD catheter and at least one for the VLS ports (4–9).

Laparoscopic techniques are at least equivalent to standard laparotomic placement procedures with regard to complications and outcomes (10–13), and they are especially indicated in patients with prior abdominal surgery (14,15).

Since 2007, we have applied one-port VLS placement procedures in patients with contraindications to standard laparotomic placement. Here, we describe this one-port technique and our evaluation of catheter outcome compared with catheters placed by laparotomy in patients without contraindications to open surgical technique.

METHODS

Between April 2007 and December 2010, 21 consecutive patients underwent one-port VLS-controlled catheter placement at our center in preparation for dialysis start. All patients had undergone previous major surgical interventions in the abdominal space and had been classified as not eligible for standard laparotomic catheter placement. The patients included those evaluated at our

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