

Invited comment on Selvaggi et al.: Is omitting pouchography before ileostomy takedown safe after negative clinical examination in asymptomatic patients with pelvic ileal pouch? An observational study

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In the manuscript “Is omitting pouchography before ileostomy takedown safe after negative clinical examination in asymptomatic patients with pelvic ileal pouch? An observational study,” Selvaggi et al. [1] have questioned the utility of routine pouchography prior to the restoration of intestinal continuity following ileal pouch-anal anastomosis (IPAA). In their study, they identified 186 patients over a 23-year period who had undergone an IPAA with diverting ileostomy performed by a single surgeon. All patients underwent regular clinical examinations and endoscopic evaluation prior to takedown of their ileostomy and were found to have normal endoscopic examinations. Fifty-four of these patients underwent pouchography before takedown of their ileostomy, while 132 patients did not. In the pouchography group, 5 patients had abnormal findings (anastomotic sinuses) and underwent ileostomy closure without delay. In the follow-up period (12 months minimum), 2 patients presented with pouch-related fistulas: one from the pouchography group (who had a normal preoperative pouchography) and one from the clinical examination group (who had a normal preoperative clinical and endoscopic examination). Because the pouchographies performed on asymptomatic patients did not change management, the authors conclude that pouchography may be safely omitted before ileostomy takedown if there is no clinical and endoscopic evidence of pelvic sepsis or ileo-anal anastomotic complications.

Selvaggi et al. have provided us with some valuable perspectives to take into consideration when evaluating patients preoperatively prior to takedown of a diverting

ileostomy after IPAA. It is clear from a majority of the literature that most surgeons use a protecting stoma when performing IPAA. The rationale for this is that multiple suture lines, tension at the anastomosis, and sometimes the immunosuppressed state of the patient, increases the risk of anastomotic and peri-pouch complications. Diversion may, in fact, not *prevent* complications such as an anastomotic leak, but likely decreases the severity of sepsis secondary to the leak if it occurs. Given that the stoma is placed for the potential risk of anastomotic leak, and the fact that the diversion may significantly decrease clinical manifestations of occult, an evaluation of the pouch, before restoration of intestinal continuity, seems reasonable. We do not routinely perform endoscopy in our pouch patients before stoma reversal, and it is not clear why Selvaggi et al. do so. If they are performing endoscopy to evaluate the pouch for strictures, staple line breakdown or anastomotic leak, we believe that pouchography would be more sensitive and specific.

Initially utilized to assess pouch volumes and integrity, pouchography is currently employed by many surgeons to preoperatively identify abnormalities that can lead to pouch-related complications (fistula, sinus, anastomotic stricture, leak, etc.) after the restoration of intestinal continuity. Little data exist to support, or reject, the routine use of contrast enema evaluation prior to defunctioning loop ileostomy closure, especially in an asymptomatic patient population with a normal clinical examination. We agree with Selvaggi et al. that in the majority of patients who do well after pouch surgery, a pouchogram may add little to surgical decision making. Given the findings of this study, the following questions may be considered; how does the surgeon perform an adequate and thorough clinical examination in order to feel comfortable that no pouch-related complications exist? Is endoscopy necessary to rule out

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potential pouch-related problems? Is the combination of several negative clinical examinations and endoscopic evaluation equivalent to a negative pouchogram? Should the cost, risks, discomfort and sensitivity and specificity of physical examination plus endoscopy to pick up pouch-related complications be compared to contrast enema? Given the limitations of this study (single surgeon, retrospective, non-standardized approach, small numbers of patients with abnormal findings), it is difficult to draw definitive conclusions regarding omission of pouchography in asymptomatic patients before ileostomy reversal in patients with IPAA.

In our practice, we perform approximately 120 IPAA per year and all patients get pouchography before ileostomy takedown, despite a normal postoperative recovery and normal clinical examinations. This has been our standard practice because we have shown that abnormal findings on pouchogram can identify patients that are at high risk of long-term complications and allows an opportunity to intervene, thereby possibly preventing a much more significant pouch-related problem [2]. In our study of 463 patients after IPAA, we found that 16 % of patients had an abnormal pouchogram. In this group, the pouch failure rate was 23 %, and the rate of anastomotic stricture requiring dilatation under anesthesia was 33 %. In patients with normal pouchograms, stricture and failure rates were significantly lower: 4 and 6 %, respectively. Furthermore, in the abnormal pouchogram group, 27 % of the patients required delayed ileostomy closure to allow healing of a defective pouch or anastomotic leak.

We believe that the primary function of pouchography performed before ileostomy closure is to identify pouch or anastomotic abnormalities that could cause major

morbidity (such as pelvic sepsis) if intestinal continuity were re-established before the problem was corrected. The findings of our previous work support this rationale, and among patients in whom closures are delayed because of an abnormality on pouchogram, very few fail. As stated in the manuscript by Selvaggi et al., we did not report the clinical status of our patients and cannot answer the question as to whether or not clinical status would have made a difference. However, we believe that pouchogram is a valuable and simple method of assessing pouch and anastomotic integrity, and its routine use prior to ileostomy closure in IPAA patients remains our practice. We understand also that pouchogram is not without its limitations and risks. Pouchogram is uncomfortable, inconvenient, expensive, requires an expert radiologist, and exposes patients to radiation. Given the findings by Selvaggi et al., the necessity of pouchogram in patients with IPAA who are asymptomatic should be further studied to determine patient-specific indications that can facilitate safe and cost-effective surgical decision making.

Conflict of interest The authors declare that they have no conflict of interest.

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