

Kiwi Seed Test for Detection of Enterocutaneous Fistula

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To the Editor

We read with interest the paper of Gui et al. [1] on vacuum-assisted wound care for closure of low- and high-output enterocutaneous fistulas. We would like to share our observation of a simple bed-side test for the detection of low-output enterocutaneous fistulas.

Up to 5 % of patients undergoing GI-tract surgery develop an anastomotic leak with the need of multiple reoperations, prolonged hospital stay, and a fatal outcome up to 24 % in this heterogenous subgroup [2]. Nearly 80 % of all leakages and fistulas can be visualized and verified by examination of drainage fluid, ultrasound, endoscopy, and instillation of water-soluble contrast media or methylene blue [3]. While high-output fistulas require surgical intervention, low-output fistulas, however, with a drainage volume of less than 200 ml/day often close spontaneously, and oral feeding is well tolerated [4]. High-output fistulas are easy to diagnose while low-output fistulas are difficult to prove.

Three patients with low-output fistulas in the abdominal incision (62-years-old male with fistula in the right subcostal incision after open cholecystectomy and acute pancreatitis; 32-years-old male with fistula of the small bowel after multiple relaparotomies; 78-years-old female after sigmoid resection for diverticulitis) were treated conservatively in the last 18 months. These patients had oral nutrition without increase of fistula output. In all cases,

however, it was impossible to document a real fistula by clinical and radiological examination (fistulography, contrast medium enema). After intake of kiwi fruit, the seeds appeared in the fistula fluid documenting a duodenal, a small bowel, and a small anastomotic leak of the colon, respectively. All fistulas closed spontaneously.

This observation shows that the kiwi test represents a simple, accurate, convenient, and inexpensive tool to diagnose low-output enterocutaneous fistulas after abdominal surgery. A similar observation has been made for the detection of enterovesical fistulas with the use of poppy seed [5].

References

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