

Microdialysis following Gastro intestinal surgery

- To provide early warning of Intestinal ischemia and Anastomotic leakage

APPLICATION

- The Microdialysis catheter is placed in the intraperitoneal space
- Allows the physician to study intra-abdominal metabolism during or after a surgical procedure
- Increased Lactate and increased Lactate to Pyruvate ratio indicates signs of anastomotic leakage
- Indications include Right Sided Hemicolectomy, Rectal and Colorectal Resection, Colectomy, Pancreatectomy, Oesophageal and Gastric Resections

CONCLUSION INTRAPERITONEAL MICRODIALYSIS (IPM)

- IPM is a safe method to continuously monitor the local tissue chemistry in the intraperitoneal space
- Complications like anastomotic leakage can be detected by Microdialysis before clinical signs become evident
- IPM can be an alternative to the "second look" in doubtful post surgical results
- Research possibilities are endless

PERITONEAL MICRODIALYSIS EARLY DIAGNOSIS OF ANASTOMOTIC LEAKAGE AFTER LOW ANTERIOR RESECTION FOR RECTOSIGMOID CANCER

Department of Surgery. Odense University Hospital, , Denmark

Scand J Surg. 2009;98(3):148-54

- Two patients developed symptoms on anastomotic leakage on postoperative day 20 and 21, respectively.
- In both patients a significant increase in L/P ratio and a corresponding decrease in glucose concentration were found during the first 5 days postoperatively.

CONCLUSION: Peritoneal microdialysis is a safe and promising tool in early diagnosis of anastomotic leakage after low anterior resection for rectosigmoid cancer



MEDIASTINAL MICRODIALYSIS IN THE DIAGNOSIS OF EARLY ANASTOMOTIC LEAKAGE AFTER RESECTION FOR CANCER OF THE ESOPHAGUS AND GASTROESOPHAGEAL JUNCTION

Mark Ellebæk et al (The American Journal of Surgery 2014)

- We believe that this cost for Mediastinal Microdialysis (MM) is low compared to the potential costs related to the treatment of complicated AL.
- Results from this study showed that MM is a promising method to detect early AL before the development of significant clinical symptoms.