Literature:

Clinical studies listed below demonstrate usage of Microdialysis monitoring in the gastrointestinal tract following surgery.

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Am J Surg. 2014 Jan 16.
Ellebæk M, Qvist N, Fristrup C, Mortensen MB.

Identification of anastomotic leakage after colorectal surgery using microdialysis of the peritoneal cavity.
Tech Coloproctol. 2013 Apr 30
Daams F, Wu Z, Cakir H, Karsten TM, Lange JF.

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Eur J Vasc Endovasc Surg. 2013 Mar 26
Hörer TM et al.

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Scand J Gastroenterol. 2011 Mar 28.
Hörer TM, Norgren L, Jansson K.

Intraperitoneal microdialysis in the postoperative surveillance after surgery for necrotizing enterocolitis: a preliminary report.
Pedersen ME, Dahl M, Qvist N.J Pediatr Surg. 2011 Feb

Peritoneal microdialysis. Early diagnosis of anastomotic leakage after low anterior resection for rectosigmoid cancer.
Scand J Surg. 2009
Ellebaek Pedersen M, Qvist N, Bisgaard C, Kelly U, Bernhard A, Møller Pedersen S.

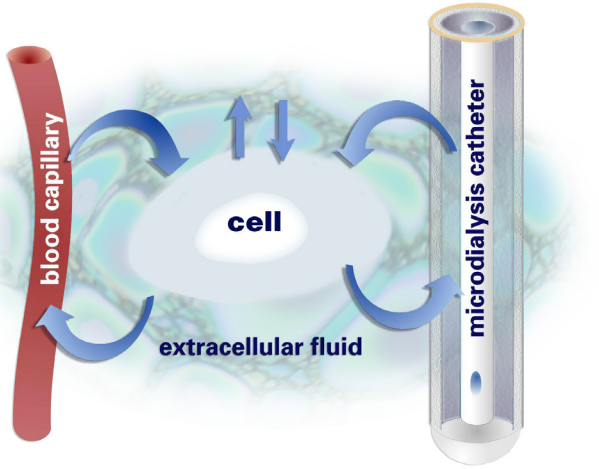
Early detection of anastomotic leakage after pancreatoduodenectomy with microdialysis catheters: an observational Study.
Lindholm E, Bergmann GB, Haugaa H, Labori KJ, Yaqub S, Bjørnbeth BA, Line PD, Grindheim G, Kjøsen G, Pischke SE, Tønnessen TI.HPB (Oxford). 2021 Nov 5

Detection of early anastomotic leakage by intraperitoneal microdialysis after low anterior resection for rectal cancer:a prospective cohort study. Colorectal Dis. 2019 Dec;21
Ellebaek MB, Rahr HB, Boye S, Fristrup C, Qvist N.

Early detection of complications in pancreas transplants by microdialysis catheters, an observational feasibility study.
Kjøsen G et al, PLoS One. 2021 Mar 11;16.

Contact information

Principle of Microdialysis



M Dialysis AB

M Dialysis is the leading company devoted to the development, manufacturing and marketing of the Microdialysis technique.

The head office is located in Stockholm, Sweden, with a subsidiary in Boston MA, USA. M Dialysis has distributors across the globe, responsible for local sales, service and support.

μ dialysis

M Dialysis AB, Box 5049, SE-121 05 Stockholm, Sweden,
Tel: +46 8 470 10 20, Fax: +46-8-470 10 55
E-mail: info@mdialysis.se, www.mdialysis.com

Distributor

Ref. No. 8050155C 2022-05-25

Microdialysis

Gastrointestinal Surgery

μ dialysis

Microdialysis monitoring after Gastrointestinal Surgery

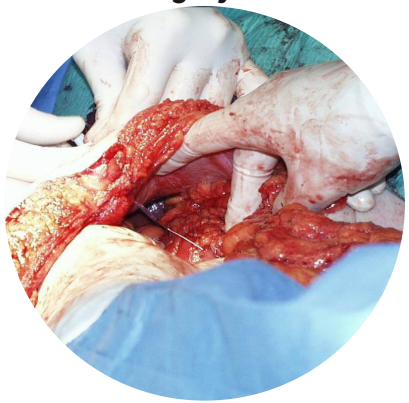
Gastrointestinal surgery is associated with a risk of post-operative complications such as anastomosis leakage and sepsis. Early diagnosis of complications and intervention is critical to improve outcome.

Intraperitoneal Microdialysis is a uniqe technique for early detection of complications following surgery.
The technology is minimally-invasive, easy to handle, and can be used for several days. The method is performed by inserting a Microdialysis catheter into the intraperitoneal space during open surgery.

The catheter is perfused with a sterile isotonic solution via a small pump attached to its inlet lumen. When inserted in the intraperitoneal space small substances diffuse through the semi-permeable Microdialysis membrane into the perfusion fluid. This fluid, now known as dialysate, moves through the outlet lumen and into a collection microvial. The Microvials are exchanged at regular intervals and analyzed immediately using the ISCUS^{flex} Microdialysis Analyzer.

The metabolite values in the collected sample provide a picture of the local metabolism and Microdialysis is a safe and reliable monitoring for surveillance of for example an anastomosis after colorectal surgery.

Early detection of metabolic changes following Gastro Intestinal Surgery

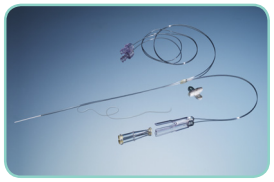


The Microdialysis Catheter is placed free floating in the intraperitonal cavity close to the anastomosis during open surgery.

Microdialysis sampling

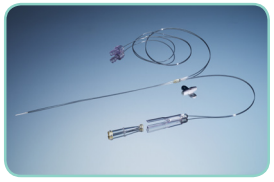
Microdialysis sampling is carried out by placing the sterile CE-certified Microdialysis Catheter in the Intraperitoneal space close to the anastomosis after colorectal surgery.

61/61 High Cut off Microdialysis Catheter



- For implantation in the intraperitoneal cavity or hepatic tissue during open surgery
- Available with 20 or 100k Dalton membrane
- Sterile, single use

62 Gastrointestinal Microdialysis Catheter



- For implantation in the intraperitoneal cavity during open surgery
- Available with 20k Dalton membrane
- Sterile, single use

106 Microdialysis Pump

The 106 Microdialysis Pump is dedicated for the perfusion of Microdialysis catheters with sterile isotonic perfusion fluid. It is handy and battery driven. The operating status is indicated by LED´s and it operates at a fixed flow rate of 0.3 µl/min.

The Microdialysis monitoring system is light and portable and is not disturbing nursing actions or movement of the patient.

ISCUS^{flex} Microdialysis Analyzer

The ISCUS^{flex} Microdialysis Analyzer is specially designed for the handling of small Microdialysis sample volumes.

The system is unique for monitoring metabolic changes in tissues, intraperitoneal fluid and organs during surgery, intensive care and normal ward.

Biochemical markers:

Glucose

Glutamate

Lactate

Glycerol

Pyruvate

Urea

LP-ratio

The ISCUS^{flex} Microdialysis Analyzer is easily operated by medical professionals. Data is displayed as trend curves for easy and fast interpretation.