



TRANSANAL ENDOSCOPIC MICROSURGERY (TEM)

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Why?

Transanal endoscopic microsurgery (TEM) has emerged as a safe alternative to open surgery for removing very early rectal cancers and polyps, the precancerous masses that form on the lining of the colon or rectum. This means that patients may be able to avoid traditional, open surgery and an abdominal incision. This will allow them to have a faster recovery and to resume normal activities much sooner.

What?

The scope can reach up from the anal verge. A smaller telescope is a combination of a microscope and binoculars, which gives the surgeon a magnified views in 3-D. An insufflator fills the rectum with carbon dioxide gas so the surgeon can see the walls of the rectum. This gives the surgeon a better view when removing tumors through the anal canal. The instruments are specially designed to work through the scope. These instruments assist the surgeon in dissection of the bowel wall containing the tumor and removal of the tumor through the anus. The surgeon also sews the bowel with absorbable sutures using the instruments. Upper limit for TEM is about 12 cm anteriorly, 15 cm posteriorly, measured with the rigid scope.

When?

Patients with small, early cancers or malignant tumors (T1N0M0) of the rectum are candidates for this surgery. Patients with benign, non-cancerous tumors of any kind are also candidates. The surgery is usually performed under general anesthesia but epidural or spinal anesthesia is possible. Some patients who need open surgery but cannot tolerate a general anesthetic may be candidates for TEM. The anesthesiology team can help determine which approach is best suited to each patient.

Post-op care

Regular food is started the next day. Activities can usually be resumed the next day. Although pain medication is rarely needed, med anodyne is usually all that is needed. Usually the patient is able to go home two day after the surgery.

Complication

Although uncommon, inadvertent entry into the peritoneal cavity during the procedure may require conversion to an open procedure. Postoperative complication are mainly of a minor character and include pain, fever, urinary retention, bleeding, rectourethral fistula, rectovaginal fistula, fecal.

Benefits

The greatest benefit of TEM is that a patient can avoid open surgery and experience less pain and time recovering from surgery. Patients can often return to normal activity sooner and experience little to no pain after surgery. Sometimes, as a result of open surgery, a patient may need a colostomy (the surgical construction of an artificial anus between the colon and the surface of the abdomen). Another benefit of TEM is that the need for a colostomy is rare and unlikely. Other risks associated with an abdominal incision are avoided, such as wound infection, and pulmonary infection.



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