

Introduction

1. Small bowel is a very long organ and it was very difficult to investigate small bowel diseases. Nowadays with the development of capsule endoscopy (CE), it provides a very effective way in tackling the problem.
2. CE is a new invention that with the size of a big tablet. There are micro-camera, data transmitter and battery inside the capsule. After patient has swallowed the capsule, it will follow peristalsis of the bowel to enter into the small bowel and takes around 50,000 pictures inside the small bowel. The image will be transmitted to a data recorder outside patient body. Therefore patient could have the small bowel examination in a painless way. Doctor could analysis the pictures in the computer and an accurate diagnosis of the small bowel condition could be made.
3. With the advance of CE, it has extended the applications to oesophageal and colonic diseases. It may help to reduce some invasive endoscopic examinations.



Indication

- Small bowel CE is indicated for patients with:
 - Occult or obscure gastrointestinal bleeding
 - Unexplained iron deficiency anaemia
 - Suspected or to follow up for Crohn's disease (one of the inflammatory bowel diseases)
 - Suspected small bowel tumour and polyp diseases
- Esophageal CE is indicated for patients with:
 - Suspected oesophageal varices (as a complication of liver cirrhosis)
 - Suspected or to follow up esophagitis and Barrett's esophagus (pre-malignant condition) in patients with gastroesophageal reflux disease.
- Colonic CE is indicated for patients with:
 - Suspected colonic cancer and polyps diseases
 - Suspected inflammatory bowel disease
 - Prior failed colonoscopy examination
 - As a screening method for colorectal cancer disease

The Operation / Procedure

1. Before the examination, nurse would place several data receiver patches on patient's body and a data recorder on patient's waist.
2. And then patient would be given a capsule endoscopy to swallow. It starts the examination.
3. Nurse would check the location of the capsule by a real time monitor to make sure that the capsule has passed to the stomach.
4. Half hours later, nurse would check again the location of the capsule by the real time monitor to make sure that the capsule has passed to the small bowel. If the capsule is already in the small bowel, the patient could leave the endoscopy Centre.
5. Subsequently patient would be given 1 litre of bowel cleansing fluid to carry the capsule into the small bowel. 2 hours later, patient could resume drinking colorless fluid.
6. After 4 hours, patient could resume on light diet.
7. During the examination period, patient should record proper function of the capsule by checking the green/blue flashing light on the data recording machine. If it has stopped prematurely, patient should inform ward nurse or the endoscopy centre nurse (Tel: 23398973).
8. The examination time for small bowel capsule endoscopy is around 9 hours and for esophageal capsule endoscopy study, it will only take 30 minutes.
9. For patient safety and security surveillance, all endoscopy rooms are equipped with 24-hour recording CCTV. Video records will be managed according to the principles of Personal Data Privacy Ordinance.



Before the Operation / Procedure

1. A written consent is required.
2. Before small bowel CE examination, patient should only have a light dinner and stop further food intake after 8pm the night before the examination. Patient should follow the instruction by the doctor to drink 2 litres of bowel cleaning agent to clear off food residue in the small bowel. If patient is using Rifampicin, Pyridium or Ferrous Sulfate, it should be stopped 7 days before the examination.
3. Before colon CE examination, patient should use low fibre diet (i.e. no grains, nuts) three days before the examination. Patient should only have a light dinner and stop further food intake after 8pm the night before the examination. Patient should follow the instruction drink 2-4 litres of bowel cleaning agent to clear off feces from the colon. Only clear fluid is allowed on the day of examination.
If you have sweating, palpitation, severe vomiting, dizziness and abdominal pain after taking the laxative, please stop and inform your doctor or the nurse immediately.
4. For esophageal capsule endoscopy examination, patient just needs to be fasted for 4 hours before the examination.
5. The patient needs to arrive the endoscopy Centre at 8am.
6. The patient should inform the medical staff of any major medical problems and continue the medications as instructed.
7. Elder patient or patient with difficulty in walking should be accompanied to the hospital.

After the Operation / Procedure

1. After the end of the examination, patient should return the equipment to the endoscopy Centre as soon as possible.
2. Before capsule being excreted from the body, patient should not be close to strong magnetic field, such as magnetic resonance imaging machine.

Risk and Complication

Capsule endoscopy examination is a very safe procedure. Patient would not have any feeling during the procedure. In small number of patients with stricture in the bowel, the capsule may not be able to pass through and results in capsule retention. The capsule may need to be retrieved by small bowel endoscopy or surgery.

Disclaimer

This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

Reference

UpToDate. (2019). Wireless video capsule endoscopy