1. **Introduction**
   1.1. ESD is an advanced endoscopic procedure which is done during OGD or colonoscopy. The goal of ESD is removal of gastrointestinal tumors that have not entered the muscle layer. ESD may be done in the oesophagus, stomach or colon.
   1.2. The procedure consists of three steps:
       1.2.1. Injecting fluid into the submucosa to elevate the lesion
       1.2.2. Cutting the surrounding mucosa of the lesion
       1.2.3. Dissecting the submucosa beneath the lesion

2. **Procedural Preparation**
   2.1. A written consent is required.
   2.2. Patient should fast for at least 6 hours before the examination.
   2.3. Before colonic ESD procedure, patient should only use a low fibre diet (i.e. no grains, nuts) three days before the examination.
       2.3.1. Only clear fluid is allowed on the day of examination
       2.3.2. Consume all laxative as instructed, or else the examination cannot be proceeded
       2.3.3. However, if patient has severe sweating, palpitation, vomiting, dizziness and abdominal pain after taking the laxative, please stop and inform the doctor or the nurse immediately and go to the nearby hospital or Accident and Emergency Department if condition getting worse.
   2.4. Do not take any valuables or wear any metallic belongings or jewellery to the hospital.
   2.5. Avoid having any make up or nail polish for it may interfere the medical observations.
   2.6. Patient should inform the medical staff of any major medical problems including diabetes, hypertension and pregnancy, and continue the medications as instructed.
   2.7. Patient should also provide information regarding their current medications especially the use of antiplatelet and anticoagulation drugs and any allergic history.
   2.8. Patient must be accompanied by an adult relative or friend when leaving the hospital.
   2.9. Heavy drinking, smoking or use of sedative before the procedure should be avoided.

3. **Procedure**
   3.1. Prior to the procedure, depending on the individual patient’s condition, intravenous sedation may be given to the patient to alleviate any anxiety and discomfort related to the procedure.
   3.2. Local anaesthetic will be sprayed on the throat causing some numbness. Patient will be instructed to bite on a plastic mouth guard so as to facilitate the insertion of endoscope by doctor.
   3.3. Patient should lie on the left side.
   3.4. Doctor would then pass a flexible endoscope through the mouth down to GI tract for upper endoscopy or insert through the anus up to the large bowel for lower endoscopy to perform the examination.
   3.5. Patient is under closed monitoring during the procedure.
   3.6. It is normal if feeling bloating and abdominal distention during the procedure.

4. **Post-procedural information**
   4.1. As the effect of local anaesthetic will persist for about an hour, patient should remain fasted until anaesthesia has worn off. This prevents choking with food or fluid intake.
4.2. If the patient has received intravenous sedation, patient should avoid operating heavy machinery or driving for the rest of the day to prevent an accident. Also he/she should avoid signing any legal document.

4.3. The patient may contact the Endoscopy Centre during office hours for any discomfort after the procedure, or any question about the examination result and drug treatment.

4.4. However, if patient has the following conditions such as passage of large amounts of blood, severe abdominal pain, or fever, he/she should seek medical advice at the nearest Accident and Emergency Department.

5. **Possible Risks and Complications**

5.1. For upper endoscopy, the local anaesthetic causes numbness in the throat for around an hour, resulting in difficulty in swallowing.

5.2. Minor discomfort including nausea and distension discomfort of the stomach and mild sore throat is common. These should disappear within a day.

5.1. ESD could cause serious complications, which include perforation, bleeding, etc. The complication rate in general is less than 10%. If major complications occur, emergency surgical treatment may be needed.

5.2. The complication rate varies with patient’s conditions and the complexity of the diagnostic and therapeutic methods performed.

6. **References**


I, ______________________ acknowledged that the above information concerning the operation or procedure has been explained by Dr ____________________. I have also been given the opportunity to ask questions and received adequate explanations concerning the condition and treatment plan.

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