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ENDOSCOPIC REVISION OF BYPASS ANATOMY
Procedure information sheet

PROCEDURE DATE …….

ARRIVAL TIME …….

HOSPITAL St Vincent's Northside, 627 Rode Rd, Chermside

How are you to prepare?

On the day of your procedure you are to consume NO FOOD from midnight. If your appointment is later in the day you may have **CLEAR FLUIDS ONLY** (eg. Water, lemonade, apple juice, black tea and coffee, etc.) **until four hours prior to your procedure**. You should then be Nil By Mouth (i.e. no food, fluids, water, smoking) until after your procedure.

Important post-procedure care instructions

You will remain in the endoscopy unit for up to 3 hours until the main effects of the sedation wear off and you have had something to eat/drink. You may feel slightly bloated due to the air that has been introduced through the endoscope. This will quickly pass. You should avoid alcohol for 12 hours after your procedure.

-For legal reasons you MUST NOT drive a vehicle or operate machinery for the remainder of the day following intravenous sedation. This is at the discretion of your anaesthetist. Failure to do so carries the same implications as drink driving.

-You MUST have a responsible adult escort you home (i.e. you should not go to work) and stay with you overnight after the procedure. Also you should not care for dependent persons without responsible help for at least 12 hours after your procedure.

IF THESE REQUIREMENTS ARE NOT MET YOUR PROCEDURE MAY BE CANCELLED. These requirements are compulsory for all hospitals and all anaesthetists.

-You are also advised to be very careful in simple household tasks in the 12 hours after receiving sedation. Your coordination may be impaired for some time.

-Air Travel - If you intend to travel within 24 hours of your procedure please contact us to discuss.

If you develop any pain, fever, vomiting or blood loss after the procedure, you should contact your doctor immediately or the hospital where your procedure took place. Alternately, after hours, you can contact our after hours service on 3261 9570.

Medications

Continue taking all medications as usual unless otherwise instructed. If your procedure is early in the morning you can:

- Take medications as usual prior to your nil by mouth time
- After your nil by mouth time take medications with a small sip of water (i.e. approx. 20ml)
- Bring the medication with you to hospital to have after your procedure (unless you take heart or blood pressure medication, in which case you should take this as normal with a small sip of water)

If you take blood thinning medication or are diabetic please inform our rooms as soon as possible. You may receive a call from our practice nurse to discuss this further.

What is an Endoscopic Revision of Bypass Anatomy?

INTRODUCTION

With patients who have had gastric bypass surgery, a small stomach has been fashioned from the main stomach and connected to the small bowel. There are two types of bypass: a single anastomosis gastric bypass and a Roux-en-Y gastric bypass. In both of these procedures, the small stomach is connected to the small bowel via a join called a gastrojejunal anastomosis (GJA). The mechanism by which the gastric bypass achieves weight loss is complex but includes diversion of food from the duodenum and first part of the small bowel as well as a restrictive effect in which there is a small stomach that cannot accommodate as much food and there is some restriction in the emptying of the stomach into the small bowel provided by the GJA. Studies have shown that in up to 25 % of patients who have had successful weight loss after a bypass operation, weight regain occurs. Dilation of the GJA has been shown as an independent risk factor for this phenomenon. Studies have also shown that if the gastrojejunostomy can be reduced in size, further weight loss can be achieved and weight regain can be prevented. The surgical approach to this is to take the small bowel off the small stomach and redo the anastomosis. This revisional surgery is high risk and is associated with a 20 % chance of significant morbidity. Because the gastrojejunostomy is readily accessible with a gastroscope, it lends itself to endoscopic intervention. There are two broad types of endoscopic intervention applied to tighten the gastrojejunostomy, including argon plasma coagulation (APC) and endoscopic suturing (OverStitch).

PROCEDURE

Both the argon plasma coagulation and the OverStitch procedures use a gastroscope. The gastroscope is a flexible video instrument with a light source, working channel and an ability to insufflate carbon dioxide into the gastrointestinal tract.

APC:

Argon plasma coagulation (APC) is a way of delivering heat in a very controlled fashion to the inside lining of the gastrointestinal tract. This is achieved by using argon, which is an inert gas, and pumping this through a catheter that is placed through the working channel of a gastroscope. The catheter contains an electrode which is connected to a heat source. The electrode then heats the argon and the argon changes into a plasma. The plasma then conducts the heat energy to the tissue in a very controlled fashion. It is normal to have some bloating or distension afterwards as the argon gas can become trapped in the small bowel. You feel better once you have burped or passed flatus.

With APC, the procedure is performed under intravenous sedation (not a general anaesthetic). The sedation is a deep sedation and you will be unaware of what is happening during the procedure. The gastroscope is gently inserted over the back of the tongue, passed down the oesophagus into the gastric pouch. The GJA is then examined. After this, the argon plasma coagulation probe is placed down the channel. The APC is then used to burn the mucosa on the gastric side of the gastrojejunostomy. If there are surgical clips or sutures in the way, these need to be cleared before the argon plasma coagulation is performed.

OverStitch:

The OverStitch is a device which fits on the end of a gastroscope that has two working channels. It allows surgical grade suturing of the gastrointestinal tract to be performed. Please see apolloendo.com/overstitch to view the device. The suture is a permanent suture and the tension on the suture is created by tightening a cinch after the suture has been correctly placed. The cinch also cuts the excess suture. The needle is attached to the suture and stays inside you and acts as a T-anchor in which tension on the suture can be created and then fixed with the cinching device.

The OverStitch procedure is usually done under general anaesthetic. After the anaesthetist has put you to sleep, a gastroscope with two working channels is inserted into an overtube. An overtube is a piece of plastic that is placed through the mouth and into the proximal part of the oesophagus to protect that area from the scope as it goes in and out. The scope with the overtube is then gently introduced into the oesophagus and the overtube deployed. Following this, the scope is taken down into the gastric remnant. The gastrojejunostomy is then identified and measured. Argon plasma coagulation is performed to the gastrojejunostomy as the first procedure. The OverStitch device is then mounted on to the therapeutic gastroscope and a suture is placed. One or more sutures can be used. There are a variety of different suture patterns that can be used. The most common pattern is called a “pursestring”. This involves placing the suture in a circumferential fashion around the gastrojejunostomy and then closing the suture over a sizing balloon that is placed through the gastrojejunostomy before the suture is tightened and cut.

What will happen?
After checking into the hospital and completing your admission you will be seen by a pre-admissions nurse for a brief health check. The anaesthetist and procedural doctor will talk to you prior to the procedure. At the beginning of the procedure you will be asked to lie on your left side and a guard will be placed in your mouth to protect your teeth. You will be given a sedative by injection in a vein before the procedure begins.

Safety and Risks
APC:
The potential procedural complications with the APC are rare (less than 5 patients in every 100 procedures). Specific complications related to the APC include a situation where the argon from the probe that carries the heat to the tissue can arc towards the small bowel. The small bowel mucosa is much thinner than the gastric mucosa and this can theoretically cause a hole (perforation) into the small bowel. This is very uncommon. The APC can cause surgical clips placed at the original surgery to become hot and cause damage to surrounding tissue. Other side effects can include unmasking blood vessels causing bleeding. The argon plasma coagulation is a burn of the tissue and most patients on awakening will feel a sense of nausea and / or pain and generally feel unwell. These symptoms do improve significantly two to three hours after the procedure. Most patients are sent home on the same day; occasionally, if there are severe side effects after the treatment, you may be admitted to hospital for intravenous fluids and observation.

OVERSTITCH:
The added risks of the OverStitch relate to the fact that the needle that is attached to the suture passes full thickness through the gastrointestinal tract. As such, the needle can take bacteria from the inside of the gastrointestinal to the sterile outer part of the gastrointestinal tract and cause a local infection. Intravenous antibiotics are given during the procedure to prevent this but very occasionally this can still happen. As the needle passes blindly on the outside of the gastrointestinal tract (the path of the needle cannot be seen with the gastroscope), the needle can potentially damage adjacent structures. This theoretically can include the diaphragm, the pleura, the pericardium, the spleen, the liver and blood vessels. The risk of these complications is exceedingly rare (2 or fewer per 100 procedures). The insertion of the overtube can cause some local trauma to the top of the throat which can manifest as throat discomfort and difficulty swallowing which gradually improves over three to five days after the procedure.

With both procedures, there is a possibility that the gastrojejunostomy becomes too tight. This is noted when patients try to progress from a liquid diet to a puréed diet and / or they notice tablets becoming stuck. Should this happen, you should contact your dietitian or the DDQ rooms and we will arrange for a gastroscopy, at which point you could potentially need a dilation to help manage the excessive stricturing.

Rarely patients may have a reaction to the sedation. Complications of sedation are uncommon. Rarely, serious adverse events can occur e.g. heart or lung complications or aspiration (fluid coming from the stomach into the lungs).

In the unlikely event a complication occurs, your doctor will take all due care to ensure your safety. This may include consultation with other specialists (e.g. surgeon) and additional testing (radiology & blood tests) for which there *may* be additional fees.

Fees
We do bill privately for these procedures. We provide a receipt which you can then use to claim from Medicare and your health fund. This will be discussed at the time of booking.

Post Procedure **(we strongly encourage the Intensiv Weight Loss Program for post procedure support – call 1300 468 367)**
Most patients are sent home the same day. On the day of the procedure, you will be on a clear liquid diet. The following day you will then commence your post-procedural diet instructions. These instructions are given to you either from Intensiv or your referring surgeon. Typically, the diet consists of two weeks of a liquid diet, which includes high protein liquids (such as Optifast shakes or equivalent). Following this, there are two weeks of a puréed diet and then two weeks of a soft diet. It is very important that you adhere to these dietary recommendations as it takes six weeks for the tissue to heal after the endoscopic intervention. If you have solid food before this time, you run the risk of stretching the gastrojejunostomy before it has healed properly. Follow up is mainly done through your dietitian who will note your level of restriction to foods as well as weight

changes. Generally speaking, a follow-up gastroscopy is arranged approximately three months after the endoscopic revision procedure (but not always). If your dietitian notices a loss of restriction, especially if this is associated with weight gain, then you should contact your dietitian or the DDQ rooms with view to arranging a repeat endoscopy to see if the gastrojejunostomy has dilated; if so, further therapy will be undertaken.

Results

A copy of the results will be sent to your referring doctor and you will receive a copy of the typed report. Your treating specialist will contact you if he has any serious concerns or if you require a further appointment with him. Should you have any questions or concerns contact our practice nurse at Digestive Diseases Queensland.