CityWest
GASTROENTEROLOGY
Quality gastrointestinal consultation and endoscopy

COLONOSCOPY AND COMPLEX POLYPECTOMY/ENDOSCOPIC MUCOSAL RESECTION (EMR)

Please read this entire document carefully when you receive it, it contains important information about your procedure.

Your doctor has referred you to the Interventional Endoscopy Service at Westmead Hospital for a procedure known as endoscopic mucosal resection (EMR). This is a technique by which large, usually flat polyps or lesions can be removed from the surface of the bowel, usually the colon.

Colonic polyps and conventional colonoscopy

You will already be familiar with colonoscopy and presumably removal of polyps or polypectomy as it is called. Approximately one in four patients at age 50 will have a polyp in their colon, the prevalence increasing with advancing age. Most polyps are small (90% are less than 10 mms) and can be easily removed with a snare (a small metal lasso) through which is passed a small amount of electrical current. This is a very safe technique and has been shown to dramatically reduce the subsequent incidence of bowel cancer. Most bowel cancers start from polyps.

Endoscopic mucosal resection (EMR)

EMR is a modification of standard polypectomy technique which allows the safe endoscopic removal of very large (greater than 20 mms and up to 80 mms) flat polyps. Up until recently these types of colonic polyps required surgery for their removal. A surgical approach is associated with some morbidity and usually a seven day hospital stay. EMR can be accomplished as a day case in most cases. Research done at Westmead has shown that EMR is highly effective and generally safer than surgery and results in major cost savings and much fewer days for recovery. The technique involves injection of a modified saline solution beneath the polyp, lifting the mucosal layer away from the underlying deeper muscle layer. Removing large polyps without such an injection is associated with a very significant risk of perforation or making a hole in the bowel. The injection creates a safety zone or cushion allowing the safe removal of the mucosa above.

Risks

Conventional colonoscopy is a very safe procedure. Complications are very rare, at less than one in a thousand examinations. However, complications can occur and include the following:

- Intolerance of the bowel preparation - some people develop headaches or vomiting
- Reaction to the sedatives – this is very uncommon but is of concern in people who have severe heart disease or lung disease
- Perforation (making a hole in the bowel)
- Major bleeding from the bowel – this can occur as a result of polyps being removed

It is possible, if serious complications occur, that you may require surgery or a blood transfusion.

EMR, whilst safe, probably carries an approximate ten fold increase in risk of complications compared to conventional colonoscopy. The risk of perforation is approximately 1 in 200 cases. Should this occur it is almost always recognised on the day of the procedure and surgery is performed the same day, removing the abnormal area and repairing the defect. The only other option for removing this pre-cancerous growth from the bowel would be to proceed directly to surgery. The vast majority of patients who undergo EMR have their procedure completed without complications or adversity.

Medications and blood thinners

Please see the detailed directions in the colonoscopy bowel preparation guide. It is preferable that all blood thinners are ceased for an appropriate time interval before the procedure. Ideally these should be omitted as follows:

Warfarin – should be ceased for 5 doses and recommenced one night after procedure
Clopidogrel (Plavix, Iscover) – ceased for 7 days before and 5 days after procedure

What happens

You will take the standard bowel preparation for colonoscopy. Your procedure will be performed in the morning under sedation and you will not be aware of what is going on. Most patients who undergo colonic EMR recover after the procedure as they would for a normal colonoscopy. They are not aware that a more complex intervention has been undertaken. Occasionally there is a small amount of abdominal pain (particularly if there has been a very extensive resection) which usually settles with medication. After clinical review patients are discharged around 3.00-4.00 pm to remain on clear fluids that night and resume a normal diet the following day. Contact numbers are provided such that if there is a problem you are able to reach your doctor.

Results

Your Doctor will advise you on the day in relation to the success of the procedure. Taking into consideration all patients referred to our service for this technique, the success rate exceeds 95%. Occasionally a polyp that infiltrates deeper cannot be removed endoscopically and this will be determined during your procedure and can usually only be detected at that time. That being the case then it will be necessary for you and your referring doctor to make a decision about when and how the other option of surgical intervention will be undertaken. The results of histopathology (microscopic assessment of the polyp) will be available in approximately 5-7 days and will be forwarded to your referring specialist. We will ask you to make an appointment to follow up with them in 1-2 weeks. It will be necessary for your to have regular colonoscopic follow up with your referring specialist, the frequency of which is determined by the results of the histopathology, but an annual check is usually all that is required.

Accommodation options for patients from outside Sydney

Patients travel from all around the state and interstate to have this procedure at Westmead. If you reside in a remote area, then accommodation options include:

- Motel 175 – a private motel located close to Westmead Hospital 9635-1233
- Casuarina Lodge – located within Westmead Hospital grounds 9845-6900

You will generally need to stay in Sydney for one night prior to the procedure and the night of the procedure. You must have a relative or friend with you. You cannot go home or to accommodation alone. You must plan to rest and be on light duties for 3-4 days after the procedure, although most patients will feel completely normal. If you have other significant medical problems such as kidney, liver or heart conditions, then it may be best to stay in Sydney for 3-4 days after the procedure.

Post EMR bleeding

This happens in about 2-3% of patients and usually within the first 3-4 days. Usually it is mild, but the blood seems like a lot. If you see blood mixed in with your bowel actions, but these are of normal frequency, then do not be concerned. This will settle in a day or two. However, if you are passing blood only each half hour to one hour over several hours, then this will usually require medical attention at your local hospital (potentially Westmead if you are still nearby). This type of bleeding will usually settle just with bowel rest and intravenous fluids. Uncommonly, a further colonoscopy and treatment of the bleeding site will be required.

If you have any questions please call Dr Bourke at the Westmead rooms (9633 5953) and advise the secretarial staff that you are booked for colonoscopy and EMR and the name of your referring specialist.

Research

The work done at Westmead is internationally renowned. A number of studies are currently underway to enhance understanding and even further improve outcomes for patients with large polyps. You will most likely be asked to participate in one of these research studies by our nurse. These studies are all approved by the Sydney West Human Research Ethics Committee and do not carry any additional risks to you as a patient.

Some recent important publications include:

- Bourke MJ. Current status of colonic endoscopic mucosal resection in the West and the interface with endoscopic submucosal dissection. Digestive Endoscopy 2009;21(Suppl. 1):S27–S32
- Moss A, Bourke MJ, Tran K, et al. Lesion isolation by circumferential submucosal incision prior to endoscopic mucosal resection (CSI-EMR) substantially improves en bloc resection rates for 40-mm colonic lesions. Endoscopy 2010
- Moss A, Bourke MJ, Kwan V, et al. Succinylated gelatin substantially increases en bloc resection size in colonic EMR: a randomized, blinded trial in a porcine model. Gastrointest Endosc 2010;71:589-595
- Swan MP, Bourke MJ, Alexander S, Moss A, Williams SJ. Large refractory colonic polyps: is it time to change our practice? A prospective study of the clinical and economic impact of a tertiary referral colonic mucosal resection and polypectomy service (with videos). Gastrointest Endosc 2009;70:1128-1136
- Alexander S, Bourke MJ, Williams SJ, Bailey A, Co J. EMR of large, sessile, sporadic nonampullary duodenal adenomas: technical aspects and long-term outcome (with videos). Gastrointest Endosc 2009;69:66-73
- Moss A, Bourke M, Williams S, et al. The Australian multicentre colonic endoscopic mucosal resection database (AMCEMRD) - predictors of submucosal invasive adenocarcinoma and outcomes for EMR of large laterally spreading tumours (LSTs). Endoscopy 2009;41 (Suppl. 1):A91