Signs of Rejection

Your body's immune system protects you from bacteria, viruses and fungi that can cause disease. White blood cells, which are part of your immune system, fight to rid your body of substances they recognize as foreign to you; however, the immune system will also identify your newly transplanted organ as being foreign and will attack the transplanted organ. This process is called rejection. Rejection is common, especially during the first three months after a transplant. Rejection is diagnosed by having an intestine biopsy.

Such episodes are not uncommon and can usually be reversed with medicine, but only if detected early. Some of the signs and symptoms of rejection are identical to those associated with infection. This makes it extremely important to keep your clinic appointments and to notify the coordinator of any symptoms so that the difference can be determined. You may need to be admitted to the hospital for further diagnostic testing and treatment.

Rejection and infection are two serious problems that require completely different treatment. As with any health problem, the sooner treatment is initiated, the lower the chances are of serious illness developing.

The earlier a rejection episode is treated, the easier it is to treat and reverse. Therefore, it is important for you to become familiar with possible signs and symptoms of rejection. Call your doctor or coordinator if you notice the following symptoms:

- Fever / Malaise
- Change in ostomy output (increased or decreased)
- Intestinal bleeding
- Nausea / Vomiting
- Abdominal Pain
Post- Operative Rejection Monitoring

In order to detect rejection you will have an endoscopy 2-3 times per week during the first couple of weeks after the transplant. This will allow us to detect any rejection early. Additional endoscopies will be performed whenever rejection is suspected based on clinical symptoms. This procedure is the only way to detect rejection and allows the macroscopic and microscopic appearance of the transplanted intestine to be analyzed. The ileostomy (or colostomy) provides an easy opening to enter the intestine for the endoscopy.

Per protocol, endoscopies are performed at certain intervals, although this may change according to your medical condition. In general, the first endoscopy and biopsy is performed via the ileostomy between postoperative days 2 and 3. Ileoscopy and biopsy is repeated two to three times per week while in the hospital post-transplant, weekly for the following two to three months, then monthly until stoma closure. Once the stoma is closed, endoscopies will be performed through the rectum or the mouth depending on which area of the intestine needs to be evaluated. In the case of rejection, endoscopies will be performed at least twice a week until resolution.

The endoscopy is a 10-15 minute procedure and is usually very well tolerated by the transplant recipient. A special scope called a zoom endoscope allows a close magnified evaluation of the transplanted bowel. Every endoscopy is accompanied by multiple intestinal biopsies (small pieces of

- Normal Intestine
- Mild rejection
- Moderate rejection
- Severe rejection
mucosa) that are read by an expert transplant pathologist during the same day the procedure is performed. Because the transplanted intestine (also called a “graft”) is denervated, the procedure is painless. Some temporary gas distention may also be experienced.

In addition to biopsies we will also monitor citrulline levels. Citrulline is an amino acid produced by the small intestines. Citrulline levels will stabilize about 3 months post-transplant and should be monitored monthly or any time there is a change in the patient status. This is a test that is easily performed in the hospital and a home. A few drops of blood from a finger or heel stick are placed on filter paper and the card will be mailed to the Miami Transplant Institute. (create a link for the word citrulline)