

Treatment of the syndrome of the auriculotemporal nerve is largely indicated by the assumption that the parasympathetic bulbar centers, by mediating their normal functions into the wrong end organs, are responsible for the perverted reflex behavior. Hence tincture of belladonna administered before meals has a positive relieving value, even though it retards salivation during the act of mastication.

A more radical procedure accidentally achieved good results when a surgeon injected the auriculotemporal nerve with alcohol while attempting to block the facial nerve which he assumed to be responsible for the disorder. Injection of the auriculotemporal nerve is a difficult maneuver. Probably the best technic is to block the entire third trigeminal branch or to inject a perineural effusion of 90 per cent alcohol. Such a relatively heroic measure is only justified if the embarrassments and discomforts associated with mastication of food are poorly tolerated.

#### REFERENCES

1. Frey, L.: Le syndrome du nerf auriculo-temporal. *Rev. neurol.* 2:97-104 (Aug.) 1923.
2. Lipszta, N.: *Neurol. polska*, fasc. 6. 1922.
3. Fridberg, D.: Das auriculo-temporale Syndrom. *Deutsche Ztschr. f. Nervenhe.* 121:225-239. 1931.
4. Ford, F. R.: Paroxysmal lacrimation during eating as sequel of facial palsy (syndrome of crocodile tears); report of 4 cases with possible interpretation and comparison with auriculotemporal syndrome. *Arch. Neurol. & Psychiat.* 29:1279-1288 (June) 1933.
5. Bassoe, P.: Auriculotemporal syndrome and other vasomotor disturbances about head. *M. Clin. North America* 16:405-412 (Sept.) 1932.

## MANAGEMENT OF THE PERMANENT COLOSTOMY

T. E. JONES, M.D., and R. W. KEHM, M.D.

Division of Surgery

The term, colostomy, or artificial anus, is of ominous significance to the patient. However, it is interesting to follow the change in his attitude from doubt and depression, through increasing confidence, and finally to personal pride in his ability to manage the artificial opening. As he begins to realize that he can actually lead a normal life despite this handicap, depression is replaced by planning for the future.

Many physicians who refer patients ultimately requiring colostomy to a surgeon see only a few such cases in the ordinary practice of medicine and as a result have little experience in its management. Since these same patients will return with many of their problems to the referring physician, we feel that our experience in dealing with such problems might well be described.

In the past five years we have had the opportunity to follow several hundred patients with permanent colostomies. These patients were interviewed preoperatively, were operated upon at Cleveland Clinic, and were followed postoperatively from six months to ten years. The procedures carried out with all of these patients will be described.

### **Preoperative Care**

The care of this type of patient begins at the time he is first told that an operation will be necessary. Invariably his first question is, "Will I lose the function of my rectum?" To be too brusque and straightforward at this time may be a psychological mistake and lead to much mental anguish. Falsehood and evasion are also unwise and unnecessary. One needs only to reassure the patient that complete extirpation of the tumor with cure of the disease is the primary object of the operation. If this can be accomplished with preservation of the rectum, it most certainly will be preserved. In the event that it is necessary to sacrifice the rectum, the patient can train the artificial anus so that he can lead a normal life. This gives some hope to tide over the shock and offers some confidence in the future. Too often the surgeon considers his work done with the placing of the last stitch. So often the responsibility is then but beginning.

### **Hospital Discharge Instructions**

Colostomy patients are usually discharged from the hospital about the twelfth postoperative day, with the colostomy trimmed flush with the skin of the abdominal wall. They are given sufficient dressings to last six weeks and instructed merely to keep the abdominal wall clean by sponging with warm water and changing the dressings as frequently as necessary. They are to make no attempt at irrigating the bowel and are cautioned not to wear any type of colostomy bag until they return six weeks later for postoperative examination. Patients are advised to use a mild laxative such as milk of magnesia at bedtime if the stool is too constipated but otherwise to allow natural movements to occur. Diet is restricted. The six-week interval allows the bowel to become adherent to the abdominal wall.

### **Six Week Postoperative Check-Up**

The purpose of the six-week check-up is to make sure that healing has occurred and that herniation does not exist, and secondly to give the patient detailed instructions regarding care of the colostomy. Each patient must be individualized. The bowel habits of a patient with a colostomy are no different from those of a normal individual. One person

may normally have a bowel movement twice daily, while another may have one every other day. Since there is no way of knowing beforehand what bowel habit a particular patient may have, a method must be adopted which will cause the least inconvenience to the largest number of patients. With the majority of patients, irrigation every forty-eight hours works most satisfactorily and is less nuisance than if it has to be repeated more frequently. Most patients learn in six months to evacuate the colon every forty-eight hours and leave little leakage between irrigations. Some patients have increased motility of the bowel which requires daily irrigation. Other patients have such a well established bowel habit that they need never irrigate through the colostomy. Patients soon learn which is the best procedure for them, and they should be encouraged to follow it.

The irrigating set sent home with the patient consists of a no. 16 French, male catheter, a rubber disc which fits snugly around the catheter, and a small rubber hose connection. The catheter is introduced into the colostomy for two or three inches or until the tip is below the fascial hiatus. At this point the rubber disc comes in contact with the skin around the colostomy. The disc merely acts as a washer to keep the irrigating fluid from returning from the colostomy. The glass tube rod connects the catheter to the hose of the irrigating can. The patient is advised to use one pint of warm tap water for the irrigation and retain the water for five to ten minutes. The catheter is then removed and the bowel content expelled into a basin held in the lap, or better still, the patient can sit on a small stool to bring the colostomy just above the level of the toilet seat. If the irrigation is not effectual and all of the water has returned, another pint may be used with impunity. The irrigation may be done at the most convenient time of day for the patient but should be done at the same time each day in order to establish a habit. The best time is usually after breakfast. Partaking of the meal starts active peristalsis and thus aids evacuation.

The next problem is what to apply over the colostomy. The colostomy bag or cup is mentioned only to condemn it. It is bulky, inconvenient, malodorous in warm weather, and it invariably produces a hernia or prolapse of the colostomy mucosa by its suction effect. This is a difficult complication to treat but one that seldom occurs if the colostomy bag is avoided. The majority of patients use several thicknesses of soft tissue paper or toilet paper over the colostomy supported by a soft elastic garment or flat belt. Patients should have extra paper available so that in case of an accident they can merely dispose of the soiled paper and replace it with a clean dressing. In men a wide topped athletic supporter is ideal. In women a soft elastic garment works well. Recently we have recommended a flat leather belt manufactured by the Jung Brace

Company of Cincinnati. Patients themselves invent many ingenious devices and methods of more or less value.

### Complications

The patient with the new colostomy encounters many problems which cause him much alarm until proper treatment or explanation is forthcoming from the physician. Often slight encouragement and reassurance is all that is necessary. Among these problems are (1) difficulty in irrigation, which may be one of great concern. Until patients are accustomed to the irrigation they may have trouble getting the catheter or the water into the bowel. The water may enter the bowel but not return readily. The irrigation may not be as effectual as desired, as much as expected, or as copious as at the time of previous irrigations. This may cause the patient much anxiety and fear lest the irrigation is not being carried out properly. Relief comes by reassuring him that these are common occurrences, that it will take a few months to establish a bowel habit for the colostomy, and that with perseverance the result will be satisfactory. When constipation occurs a piece of scybalous stool may be caught at the fascial hiatus creating a ball valve effect. Water will enter the colon but will not return readily. A saline cathartic will help break up the constipated stool and permit better irrigation. Sometimes these fecal masses can be broken up digitally. Massage of the abdomen from right to left along the course of the colon may facilitate emptying of the colon. Change in position at the time of irrigation may relieve the constriction of a redundant descending colon or an acute angulation which may be causing poor elimination by partial obstruction.

(2) Bleeding from the colostomy is another cause for much concern. Usually this is only slight in amount and comes from the exposed mucosa. It is important first to make sure that the bleeding is not coming from a polyp or neoplasm higher in the colon. The local bleeding can be controlled by applying a dressing of cold cream or zinc oxide ointment. The patient may then be assured that it is of no serious import and may recur from slight trauma to the mucosa.

(3) Constriction of the colostomy occurs in about 7 per cent of the cases sufficient to warrant reconstruction of the colostomy. The ideal colostomy will admit the tip of the small finger and the stool will be the size of a lead pencil. When the opening becomes smaller it is apt to cause gaseous distention, poor results from the irrigation, and other signs of partial intestinal obstruction. It is much better to have the colostomy small because it is then much easier to manage and also because it is much easier to correct. All colostomies are made in the same way, and it is difficult to explain why 10 per cent should become suffi-

ciently constricted to warrant plastic repair. Postoperative digital dilation may prevent some of the stricture, but this is a rather painful procedure. The constriction is easily corrected by excising the scar around the colostomy and reapproximating the mucosa to the skin.

(4) Prolapse of the colostomy is a rare occurrence. It is a difficult surgical problem and may require resection of the terminal bowel to obtain satisfactory results. In less severe prolapse flat pressure pads may control it adequately.

(5) Attacks of diarrhea may occur and are usually the result of some dietary indiscretion. The patient must carefully eliminate the foods which act as cathartics. In treating the diarrhea paregoric or boiled milk may be used. Boiled milk contains an insoluble protein curd which slows peristalsis and adds bulk to the stool.

(6) Hernia around the colostomy obviously is an anatomic weakness. If the hernia is small it may cause no symptoms and can be controlled by a supportive belt. If it becomes large it may allow the bowel to form a pocket bulge above the fascia which makes evacuation unsatisfactory. Surgical repair is indicated in these cases.

The accompanying chart represents an analysis of 100 cases of combined abdomino-perineal resection of the rectum with permanent colostomy. These cases demonstrate how well the patients control colostomies. All data recorded was received by interrogation of the patient at the time of his postoperative visits. In 76 per cent of the patients good results were obtained by irrigating the colostomy. By good results we mean that they were able to empty the colon at the time of irrigation and have little trouble until the time for the next one. Miles says, "These patients have no control of their colostomy but the colostomy can be controlled." This is true, and except for an occasional soiling which occurs between irrigations, as seen in 66 per cent of the cases, patients are not embarrassed by the passage of gas or stool. The longer the patient has the colostomy usually the less trouble he has. This shows a definite trend toward habit formation of the colon. Dietary indiscretion, emotional excitement, or anything that increases peristalsis will cause accidents. The small percentage of patients who have unsatisfactory results is mostly among those who are chronic complainers or those who make no real effort to establish a colostomy habit.

Among the patients who have learned to live satisfactorily with a colostomy was a school teacher who volunteered that she had missed only two days of school in four years. These patients come from all walks of life and carry on their daily work as usual. One patient stated that he could see no advantage of the normal anus over a colostomy. While this may be somewhat overstated, it is true that most people with a permanent colostomy can live a useful, happy life.

OLIVOPONTOCEREBELLAR ATROPHY

Chart

Operation	All combined abdomino-perineal resection of rectum (100 cases)	
Sex	Female 49	Male 52
Time postoperative	6 months to 10 years	Average 28.7 months
Age	29 to 78 years	Average 52.2 years
Plastic operation secondary to colostomy	6 for stricture	1 for prolapse
Protection cover for colostomy	Elastic belt . . . . . 36 Futurd colostomy belt. 44 Home made device . . . 8 Colostomy bag . . . . . 2	
Results from irrigations	Good . . . . . 76 Fair . . . . . 12 Poor . . . . . 4 No irrigations . . . . . 8	
Frequency of irrigations	Every other day . . . . . 84 Every day . . . . . 6 Sporadic . . . . . 2 No irrigations . . . . . 8	
Leakage between irrigations	Seldom . . . . . 12 Occasionally . . . . . 66 Regularly . . . . . 4 None . . . . . 18	

**OLIVOPONTOCEREBELLAR ATROPHY  
(HEREDOCEREBELLAR ATAXIA OF MARIE)  
WITH ENCEPHALOGRAPHIC FINDINGS**

*Report of a Case*

**WILLIAM A. NOSIK, M.D.**  
Department of Neurosurgery

Hassin and Harris<sup>1</sup> have stated that heredocerebellar ataxia and olivopontocerebellar atrophy is one disease process. This observation was based upon their review of Keiller's<sup>2</sup> work, wherein cerebellar atrophy was observed clinically in 10 members of the same family. The