

ever, the tonicity of the striated muscle is not constant,<sup>13</sup> and it is possible that the transferred gracilis muscle may only react when the rectal ampulla is filled and the urge to defecate is felt. Theoretically, this contraction may be created by a conditional reflex<sup>14</sup> or by a proprioceptive reflex of the gracilis muscle. This latter reflex may be due to either muscle stimulation by the descending pelvic floor or to distention of the area of the rectal ampulla caused by fecal mass passing from the sigmoid into the rectum. The former concept seems attractive with respect to the operant conditioning of the patient. Nevertheless, these concepts remain suppositions.

An explanation is even more difficult for the patients who seem continent regardless of the fibrotic gracilis muscle plasty. Although this fibrotic ring measures only 1.5 cm, this is considerably more than a mere Thiersch wire. If Corman's suggestion<sup>12</sup> holds true, pseudocontinence for solid feces may be caused by a mechanical barrier, while defecation may be achieved by enemas. This, however, is not in agreement with our patients, who rarely need enemas.

A third possibility would be that the anorectal angle is considerably sharpened by the transferred muscle, a presumption in agreement with Parks,<sup>15</sup> who suggested that the so-called postanal repair not only tightens the external sphincter, but also restores the anorectal sphincter and thus takes care of continence.

From our experiences, we may conclude that, in selected cases, gracilis muscle transposition is a rewarding procedure for fecal incontinence of various origin. A satisfactory explanation for the restoration of continence

in case of normal manometric images and low tonicity recordings cannot as yet be demonstrated.

### References

1. Pickrell KL, Broadbent TR, Masters FW, Metzger JT. Construction of a rectal sphincter and restoration of anal continence by transplanting the gracilis muscle. *Ann Surg* 1952;135:853-62.
2. Hewitt J, Rigby J, Reeve J, et al. Whole gut irrigation in preparation for large bowel surgery. *Lancet* 1973;2:337.
3. Bruijnes E. The ureteral pressure profile. *Urol Int* 1978;33:381-92.
4. Corman ML. Follow-up evaluation of gracilis muscle transposition for fecal incontinence. *Dis Colon Rectum* 1980;23:552-5.
5. Feuchtwanger M, Ben-Hur N. The surgical correction of anal incontinence by complete perineoplasty: case report. *Plast Reconstr Surg* 1968;41:268-72.
6. Lewis MI. Gracilis-muscle transplant for the correction of anal incontinence: report of a case. *Dis Colon Rectum* 1972;15:292-8.
7. Jacob ET, Shapira Z, Bar-Natan N, Berant M. Total anorectal reconstruction following congenital anorectal anomaly: report of a case. *Dis Colon Rectum* 1976;19:172-7.
8. McGregor RA. Gracilis muscle transplant in anal incontinence. *Dis Colon Rectum* 1965;8:141-3.
9. Turell R, ed. *Diseases of the colon and anorectum*. 2nd ed. Vol 2. Philadelphia: WB Saunders, 1969:1029.
10. Nieves PM, Valles TG, Arangúren G, Maldonado D. Gracilis muscle transplant for correction of traumatic anal incontinence: report of a case. *Dis Colon Rectum* 1975;18:349-54.
11. Atri SB. The treatment of complete rectal prolapse by graciloplasty. *Br J Surg* 1980;67:431-2.
12. Corman ML. Management of fecal incontinence by gracilis muscle transposition. *Dis Colon Rectum* 1979;22:290-2.
13. Ben-Hur N, Gilai A, Golan J, Sagher U, Issac M. Reconstruction of the anal sphincter by gracilis muscle transfer: the value of electromyography in the preoperative assessment and postoperative management of the patient. *Br J Plast Surg* 1980;33:156-60.
14. Schuster MM. Discussion. *Dis Colon Rectum* 1982;25:105.
15. Parks AG. Anal incontinence. *Proc R Soc Med* 1975;68:681-90.

---

### Announcement

#### INTERNATIONAL CONFERENCE: FRONTIERS IN COLORECTAL DISEASE

In honor of the 150th anniversary of St. Mark's Hospital for Diseases of the Rectum and Colon, an international conference will be held at the Barbican Centre for Arts and Conferences, London, England May 29-31, 1985. The main symposia of the conference will deal with functional bowel disorders and neoplastic and inflammatory bowel diseases. There will be Free Paper and Poster sessions (call for abstracts October 1984) and Seminars in Patient Care. An attractive social program will be arranged for all participants including an Anniversary Banquet in Guildhall, one of the finest historical buildings in the City of London. For further information, contact 150th Anniversary Conference, Concorde Services Limited, 10 Wendell Road, London, W12 9RT England.