

was a wrapping of cotton-wool  $\frac{3}{4}$  in (0.6 cm) thick. A small temperature rise was noted in the first minute, but from the fifth to the eighth minute the rise was rapid—a maximum temperature of 84°C was reached 10 minutes after starting the test. (2) The heat generation test was repeated with Chlorhexidine (Hibitane) in spirit. No temperature rise resulted.

### Conclusion and Recommendation

It is believed that the lesion suffered by the patient was a burn produced by heat generated by the action of thiomersal on

aluminium. The active ingredient in thiomersal is sodium *o*-(ethylmercurithio)-benzoate, which has a high mercury content. Mercury is known to act as a catalyst and to cause aluminium to oxidize rapidly, with the production of heat. In view of this incompatibility contact between aluminium plate electrodes and thiomersal should be avoided. The manufacturers who supply us with thiomersal have been informed.

I am grateful to Mr. D. N. Menzies for permission to report this case and to Mr. A. K. Dobbie, electrical safety officer, Department of Health and Social Security, for his advice and for allowing me to quote his experimental results.

## Rectal Prolapse after Anorectal Dilatation in the Elderly

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Anorectal dilatation is being increasingly used in the treatment of haemorrhoids. Two cases of complete rectal prolapse are reported after this procedure in the elderly.

The use of anal dilatation as a preliminary procedure in haemorrhoidectomy and in the treatment of anal fissure has long been practised. Goligher (1967) and Goligher *et al.* (1969) found on careful follow-up that this was associated with slight faecal soiling in a small number of patients, which was nearly always temporary.

A more thorough dilatation of the anus and lower rectum in the treatment of third-degree haemorrhoids was introduced by Lord (1968). He recommended the breaking down of "pecten bands" by the introduction of three or four fingers of both hands into the anal canal and lower third of the rectum under general anaesthesia. This is followed by the regular use of dilators and sterculia to give a soft bulky stool. Lord (1969) reported occasional mucosal prolapse and soiling postoperatively and treated this by excision of redundant mucosa after crush clamping without late complication.

The present two cases of complete rectal prolapse and incontinence resulted from anorectal dilatation, although in neither case was this carried out simply for the treatment of haemorrhoids.

### Case 1

An 85-year-old woman with a two-year history of rectal bleeding presented with recent painful haemorrhoidal prolapse. She had never had any soiling and on rectal examination she had a rather tight anus with a soft tumour palpable within the anal canal. Sigmoidoscopy showed nothing abnormal but proctoscopy showed third-degree haemorrhoids with a villous tumour arising from the left lateral and right posterior haemorrhoids. Gradual anorectal dilatation, eventually inserting four fingers of both hands, was carried out to facilitate subsequent control of the villous tumour and to treat the coincidental haemorrhoids. The left lateral haemorrhoid was then excised together with the tumour as a formal haemorrhoidectomy but the remaining two haemorrhoids were left. The tumour on the right posterior haemorrhoid was excised with the diathermy. A plastic sponge was then temporarily inserted into the anal canal.

Histological examination of the tumour showed a benign villous papilloma without evidence of invasion.

Postoperatively she complained of faecal incontinence on getting out of bed, and on rectal examination it was possible to insert two

fingers directly into the rectum without resistance. When the wound had healed she was discharged and was encouraged to carry out perineal exercises.

When re-examined two months postoperatively the anus was well healed without evidence of recurrence but she was found to have complete rectal prolapse with faecal incontinence. A month later a Thiersch wire was inserted, which controlled the symptoms. Adequate follow-up of her rectal tumour, however, was extremely difficult.

### Case 2

A 76-year-old woman with a long history of perianal pain and occasional rectal bleeding presented with recent constipation and ribbon-like stools. On rectal examination she had a tight anus which just admitted the examining finger. Sigmoidoscopy showed nothing abnormal but proctoscopy showed some moderate haemorrhoids.

Gradual anorectal dilatation, eventually inserting four fingers of each hand, was carried out under general anaesthesia and a plastic sponge was then temporarily inserted. Postoperatively she had relief of her pain but complained of continual soiling. On rectal examination the anus was patulous although she was able to grip the examining finger by perineal contraction.

When seen two months later she had developed complete rectal prolapse with faecal incontinence, and three months after anal dilatation a Thiersch wire was inserted. This was unfortunately complicated by episodes of faecal impaction and return of her perianal pain.

### Comment

Both these patients probably had some degree of fibrous anal stenosis, unlike a younger patient who would have an element of muscle spasm in addition to any pecten band. After anorectal dilatation for third-degree haemorrhoids it is common for patients to have some soiling and a rather lax anus for several days or even weeks, which then resolves.

Whether or not one believes in fibrous pecten bands as the remediable cause of haemorrhoids, forcible dilatation obviously reduces the ability of the sphincter muscle to contract, partly, at least, by tearing it.

In the elderly the proportion of fibrous to muscle tissue torn by this procedure is presumably greater and thus the danger of permanent incontinence is much higher.

It is strongly recommended in the light of this experience that anorectal dilatation is not used in the elderly or is limited to a much more conservative anal stretch.

I wish to thank Mr. R. V. Fiddian for permission to report these cases and for his advice and encouragement.

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