

diglycerides are secreted in the bile. Cholesterol in the bile is almost exclusively in free form and only about 4% is esterified (gall-bladder bile).<sup>9</sup> After stopping smoking the resulting nicotinic absence in stimulation of antidiuretic hormone release probably causes an increase in bile flow, and this might have caused the decrease in plasma concentration of free cholesterol, phospholipid, and triglycerides. As free cholesterol is constantly removed by high-density lipoprotein from the tissues there is no significant decrease in its concentration.<sup>7</sup> Since esterified cholesterol forms only 4% of the total cholesterol present in the gall-bladder bile, the concentration of high-density-esterified cholesterol in the plasma might have increased owing to the increase in bile flow after stopping smoking. In the patients studied by Dr Stubbe and others alcohol intake might have partly contributed to this effect by suppressing the release of antidiuretic hormone.

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- <sup>1</sup> Burn JH, Truelove LH, Burn I. *Br Med J* 1945;ii:403-6.  
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<sup>8</sup> Slater HR, Packard CJ, Bicker S, Shepherd J. *J Biol Chem* 1980;225:10210-3.  
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### Claims about compression treatment for venous disease

SIR,—Your journal of 29 May included an advertisement (opposite p vii) for compression hosiery written in the form of an authoritative statement and carrying the following heading: "Relief and reversal of the effects of venous disease by compression therapy. Possible only when pressure levels are within the range 30 to 60 mm Hg?"

The authors have assembled evidence to support their claim that graduated garments providing compression at the ankle of 30-60 mm Hg will reverse disorders of venous function in the legs. However, there are few investigations which will support their contention that lower levels of compression have little therapeutic value. The lowest levels of compression which will correct various forms of venous function remain to be determined. This is an important gap in our knowledge of this subject since patients' compliance declines with increasing compression. Indeed, my colleagues and I have previously demonstrated<sup>1,2</sup> that the Laplace relationship operates to the advantage of the patient. Because pressure is proportional to the tension in the garment but inversely proportional to the radius over which the tension is acting the small radius of superficial veins experiences greater compression than the surface of the limb itself. A garment providing 6 mm Hg around the calf will reduce the distension of superficial varicose veins.<sup>2</sup> Furthermore, the dangers of providing compression greater than 40 mm Hg were discussed in this journal at the time when inflatable splints were introduced.<sup>3</sup> Thus this statement goes beyond the evidence when it claims that relief and reversal of dysfunction are "possible only" with the high compression quoted.

The authors do acknowledge in the body of the text that the severity of venous disorders varies and "that it is vitally important to choose the compression which matches the condition." Readers

may wish to know that it is against this background that a subcommittee of the British Standards Institution is preparing a performance specification for graduated compression hosiery. Previously these garments have been prescribed against a description of their construction. The introduction of this standard will allow the clinical and physiological evaluation of hosiery according to the compression which they provide and will permit a better match between the amount of compression required and that provided. It will be unfortunate if the pattern of usage in other EEC countries should be allowed to obscure the need for a re-evaluation of this problem. In West Germany and Switzerland, in particular, garments have for some time been described by the compression which they provide. However, the pattern of their prescription by doctors appears to be influenced by, among other considerations, the levels of compression that qualify for reimbursement of the purchase price by the private medical insurance schemes, which are relatively high.

The claim that appeared in the journal is premature and anticipates studies which have not been undertaken.

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- <sup>1</sup> Fentem PH, Goddard M, Gooden BA. *Br Med J* 1976; i:254-6.  
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### Recurrent cancer after restorative resection of the rectum

SIR,—Dr B J Cummings (8 May, p 1405) rightly emphasises the dangers of inadequate resection of rectal cancer—becoming perhaps more prevalent in the wake of the stapler salesman. It is, however, simplistic and almost certainly incorrect to equate this problem with the traditional 5-cm distal margin. Most pelvic and suture line recurrences arise *outside* the anastomosis and represent missed extramural foci—probably in perirectal lymphatics: that is, rectal cancer spreads outwards like the mushroom cloud of a nuclear bomb rather than directly downwards like gastric cancer. This led us to the idea that total mesorectal excision might improve results by encompassing all the fatty lymphovascular perirectal tissue, much of which is left behind in orthodox anterior resection. Our preliminary results will appear in the *British Journal of Surgery* in October; they include 31 cases with distal margins of 3 cm or less and 10 poorly differentiated lesions—all followed three monthly for a minimum of two years. No case in the initial series of 50 has yet manifested a local recurrence, although two out of our second 50 cases have done so. These figures have been achieved without adjuvant therapy and are better than we are currently obtaining in the few (possibly less favourable) cases selected for abdominoperineal excision. They suggest to us that wide accurate perirectal dissection from above is the essence of good rectal cancer surgery, that the levators and the anus are not relevant to the proper excision of most tumours, and that the 5-cm margin may be safely reduced provided that the perirectal clearance is adequate.

Abdominoperineal excision is an entrenched part of the general surgeon's repertoire and produces reasonable cure rates without lengthy specialist training. The newer and lower anterior resections offer improved hopes for potency, bladder function, and avoidance of permanent colostomy; they are, however,

introducing a wide variation in results from centre to centre and from surgeon to surgeon. The scene is becoming further confused by the threatening tide of experimental permutations and combinations of adjuvant therapy, which may well be unnecessary in the majority of patients for whom cure is possible.

The difficulty of the surgical technique and the orchestration of adjuvant modalities is now so complex that rectal cancer should perhaps no longer be considered to lie within the province of the general surgeon. It is certainly our belief that results have been improved because consultant colleagues have been prepared to encourage specialisation within our district hospital by referring all rectal cancers to one surgeon. We would suggest that specialisation along these lines in the "Cinderella specialty" offers a real chance of improvement in results in this common and important disease.

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### Heartburn in pregnancy

SIR,—I have with great interest read the editorial by Mr J G Feeney (17 April, p 1138) on heartburn in pregnancy.

In our study in 40 patients<sup>1</sup> in early pregnancy with or without heartburn we found that there was a significant decrease in the mean barrier pressure (lower oesophageal sphincter pressure minus gastric pressure) in patients complaining from heartburn when compared with both pregnant patients without heartburn and non-pregnant patients (45 in number). Furthermore, we found that there was an increase in gastric pressure in the two pregnant groups which could not be attributed to the presence of an enlarged uterus. However, the average weights of the groups of pregnant patients were significantly heavier than that of the non-pregnant controls. The difference in gastric pressure may be a weight-related phenomenon. In Hey's article<sup>2</sup> no mention was made of the average weights of the two pregnant patients' groups or of the non-pregnant controls.

Further studies looking at this aspect and the possible hormonal control of lower oesophageal competence are imperative.

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### Side effects of benoxaprofen

SIR,—Like Drs J R Marsden and M G C Dahl (12 June, p 1782), I have observed reversible nail changes other than onycholysis in patients treated with benoxaprofen (Opren). In addition to flattening and dishing (koilonychia), I have noted warping and increased ridging of the nail plate, and originally drew these features to the attention of the manufacturers (Dista Products Ltd) at a special workshop on benoxaprofen during the XVth International Congress of Rheumatology in June last year.

With regard to photosensitive skin reactions,