(and also female deaths from benign tumours) were anomalous in being considerably less frequent in spring (March–April–May) than in autumn (September–October–November). And Table III shows that this anomaly was characteristic, though unequally so, of most of the individual cancer sites.

Of the very few non-neoplastic diseases which were similarly anomalous in England and Wales in 1956–63³ the two with the lowest ratio of spring to autumn deaths were simple goitre, namely 0.72 (33:46), and avitaminoses (in females), namely 0.76 (121:160). In contrast, the corresponding ratio at the other extreme for thyrotoxicosis, namely 1.35 (750:554), and for non-toxic nodular goitre, namely 1.41 (55:39). This last was next highest to the ratio for respiratory diseases, namely 1.43 (140,512:97,999).

Geréb² found that cancer deaths were least frequent in March and April, and as a possible explanation of this he suggested vitamin lack, citing experimental evidence of the inhibiting effect of vitamin lack on tumour growth, and also evidence, consistent with this, of seasonal variation in tumour growth. Speculation as to causes, however, is likely to be unfruitful until at the least a much more extensive and sophisticated analysis has been made, not only of British and German data but also of corresponding data from other latitudes and longitudes.—I am, etc.,

Royal Infirmary,
Aberdeen.

T. M. ALLAN.

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Case of Traumatic Subcutaneous Rupture of the Abdominal Wall

SIR,—Injuries to the abdominal contents are common and well documented both in textbooks and journals. Injuries to the abdominal wall other than incised wounds are uncommon, however, and the following case report may be of interest.

A 4-year-old boy was sent in to hospital by his general practitioner following a fall off a wall. There was no adult witness of the accident, but it is probable that he had fallen from a height of about six feet on to a pile of corrugated iron sheets. On examination on admission he was fully conscious and not shocked. He had lacerations of the right side of his neck and left arm and a tender, swollen, bruised area measuring about 7 cm. by 3 cm. below and parallel to his right rib margin in the loin. On one occasion when this swelling was palpated it gurgled. There was tenderness and some guarding in his right upper abdomen and loin. X-rays of his chest and abdomen were normal except that the swelling was visible as a bulge which contained gas. The gas was enclosed in what looked like colon, but there was no clear communication between it and the normal colonic shadow.

Under a general anaesthetic his neck and arm lacerations were explored and sutured and his abdomen was opened through a small incision below the right costal margin medial to the swelling in the loin. Through this incision it was ascertained that there was no intraperitoneal damage in the right side of the abdomen except a little bruising of the mesentery of the hepatic flexure of the colon. At the site of the swelling, however, the peritoneum and the full thickness of the muscle wall (comprising at this point transversus abdominis, internal oblique, and external oblique) had been torn across in a line

parallel to the rib margin. The colon had obviously entered the hernia and been in contact with the under surface of the skin. This skin over the hernia was incised and both the traumatic and operative wounds repaired in layers. The boy's recovery was straightforward and all his wounds were soundly healed when he was seen six weeks after discharge.

The points of interest in this case are (a) the rarity of the condition, and (b) the mechanism of injury.

We don't know how this boy injured himself, but Jamieson,¹ describing a similar hernia in an adult, postulates that the abdominal wall is forced against a small immovable object while the muscles are tightly contracted and therefore rigid. The overlying skin and underlying viscera escape injury because of their elasticity. In the only other case report which I have been able to find² a 9-year-old boy fell off his bicycle and struck his abdomen against one of the handlebars. In this case the peritoneum was not damaged and formed a hernial sac.

I am grateful to Mr. I. S. Kirkland for permission to publish this case.

—I am, etc.,

Edinburgh 3.

A. J. DOUGALL.

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Fortuitous Therapy for Psoriasis

SIR,—After having read your correspondence regarding fortuitous therapy for psoriasis (26 February, p. 544) I would like to bring the following interesting case to your notice.

The patient was a young married woman 35 years old. She had had chronic psoriasis for a number of years. The psoriasis had been treated in hospital with steroid applications and occlusions without much improvement.

Quite suddenly for no apparent reason her psoriasis cleared completely. Two days later she had a myocardial infarct for which she was admitted to hospital.

She improved and her psoriasis returned, but was not so severe as before. Unfortunately seven weeks after her first infarct she had a second one and died.—I am, etc.,

Sutton in Ashfield,
Notts.

G. B. STEIN.

Contact Dermatitis from Spandex Yarn

SIR,—We wish to draw attention to a number of cases of contact dermatitis following the wearing of a particular type of brassière. The dermatitis occurs under the elastic panels of the garment, which is made of a synthetic yarn known as Spandex. Sensitization appears to be due to the presence of an anti-oxidant, mercaptobenzthiazole, which is used in the manufacture of Spandex.

Dermatitis from clothing occurs not uncommonly.¹ Wilson¹ reported eight cases of dermatitis under brassières or corsets associated with sensitivity to rubber, and also with sensitivity to rubber gloves. Some of these cases were sensitive to mercaptobenzthiazole. Formalin dermatitis from urea

formaldehyde and melamine formaldehyde in drip-dry clothing has been described,² as has dermatitis from khaki³ and nylon-stocking dermatitis.⁴ The patterns of clothing dermatitis have been described by Wilkinson.⁵

Dermatitis from Spandex yarn is localized in the first instance to areas of skin which are in contact with panels of the brassière made of this fabric, and presents a characteristic picture. It affects skin in contact with all areas of the brassière apart from the cups—that is, at the back—ceasing two inches (5 cm.) from the mid-line, and on the front of the chest appearing in a narrow V above the breasts, where strips of the same material are used. Usually the dermatitis appears initially as an acute erythema, followed by scaling and sometimes by pigmentation. The dermatitis may become more widespread, for once established there may be cross-sensitivity with rubber in other elastic threads, as the anti-oxidant mercaptobenzthiazole is also present in most rubber garments.

Spandex thread is a manufactured fibre consisting of a long-chain synthetic polymer, of which at least 85% is a segmented polyurethane.

In the past four months we have investigated 11 patients suffering from this type of dermatitis. They had all been wearing brassières of one make, and the dermatitis had occurred after the garments had been worn for a period varying from one to three months. In all patients positive patch tests were found to parts of the brassière made of Spandex and to mercaptobenzthiazole 1% in soft yellow paraffin. Other pieces of the brassière, formalin, azo dyes, and Lycra yarn, an expanded polyurethane (which does not contain mercaptobenzthiazole), were all negative. Two patients were positive to rubber and one to tetramethyl thiuram monosulphide 1% in soft yellow paraffin.

As this is a widely advertised brassière, of which a large number are sold, contact dermatitis from this garment is not very common, but as cases have occurred in other parts of the country^{6–9} we feel our cases should be recorded.

We would like to thank Dr. H. T. Calvert, Dr. M. Feiwel, Dr. R. Vickers, and Dr. D. S. Wilkinson for asking us to investigate their patients, and Mr. W. R. Shaw for supplies of various materials.

—We are, etc.,

C. F. ALLENBY.

K. D. CROW.

V. KIRTON.

D. MUNRO-ASHMAN.

Royal Berkshire Hospital,
Reading.

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Aspergillosis Tests

SIR,—Pepys and his colleague¹ have conclusively demonstrated the value of demonstrating precipitating antibodies in the diagnosis of infections by species of *Aspergillus*. It has come to my notice that in order to free their research facilities for other