wall of ganglia are multifunctional mesenchymal cells capable of producing not only myofibrillaments but also collagen fibres and the interfibrillary mucopolysaccharide matrix.

The lining and contents of ganglia were also examined by electron microscopy. It was found that much of the ganglion wall does not have any cellular lining and that disintegrating collagen and necrotic debris lie at the surface. In segments where lining cells are found they appear to be degenerate rather than engaged in secretory activity. Thus the long-held notion that the ganglion cavity is lined by fibroblasts or synovial cells is not supported by our observations. Examination of the mucoid ganglion content also suggests that a degenerative rather than a secretory process is in operation, for abundant disintegrating collagen and fibrillary and cellular debris were seen lying in the mucoid matrix.

I believe that these ultrastructural findings substantially alter the basis of discussion on the pathogenesis of ganglia, but I am at a loss to suggest where these multifunctional mesenchymal cells come from and how the ganglion is produced. One could propose that they perhaps come from neighbouring vessels, or one could evoke the hypothesis of the intermutability of mesenchymal cells and suggest that pre-existing mesenchymal cells in this region (joint capsule) may alter to form the type of cell we have described.—I am, etc.,

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¹ Ghadially, F. N., and Mehta, P. N., *Annals of the Rheumatic Diseases*, 1971, 30, 31.

² Goldman, R. L., and Friedman, N. B., *Clinical Orthopaedics*, 1969, 63, 184.

³ King, E. S. J., *Australian and New Zealand Journal of Surgery*, 1932, 1, 367.

⁴ Ghadially, F. N., and Roy, S., *Ultrastructure of Synovial Joints in Health and Disease*, p. 4. London, Butterworths, 1969.

⁵ Wissler, R. W., *Circulation*, 1967, 36, 1.

Wandering Spleen with Complete Procidentia

SIR,—Wandering spleen or movable spleen is a congenital anomaly which is commoner in women. The condition is very rare and it is exceptional to make the correct diagnosis in the first instance.¹ Wandering spleen associated with complete procidentia must be extremely rare, and we wish to record a case.

A 50-year-old multiparous woman was admitted to the Department of Obstetrics and Gynaecology of Lady Reading Hospital, Peshawar on 19 March 1969. She had had a complete procidentia for two years, and had been aware of a swelling in the hypogastrium for 10 years, which was causing her no symptoms. Her menstrual cycle had been regular but heavy. There was no other relevant history. On examination she was thin and pale. Her pulse, temperature, and blood pressure were normal; cardiovascular and respiratory systems revealed no abnormality. On abdominal examination no mass was palpable nor was there any tenderness. Apart from complete procidentia with a few decubital ulcers on the anterior vaginal wall there were no abnormal findings.

A vaginal hysterectomy was carried out under spinal anaesthesia. While the bladder was being catheterized a tumour about 4 in × 3 in (10 cm × 7.5 cm) was noticed

in the suprapubic region. It could also be felt on pelvic examination. This tumour was soft and freely mobile. A provisional diagnosis of ovarian cyst with complete procidentia was made. When the uterovesical pouch was opened the tumour came into view. It had a notch and was obviously the spleen. Both ovaries and Fallopian tubes were normal.

Vaginal hysterectomy was completed without any complication. It was followed by a laparotomy. The spleen was found lying in the pelvis having a pedicle which was 6 in (15 cm) long. Splenectomy was carried out.

The postoperative period was uneventful, and she was discharged on the tenth day. Six weeks later she was well and had no complaints.

Maingot² states that few surgeons have operated on ptosis of the spleen. Approximately 150 cases of wandering spleen and its complications have been recorded so far.³⁻⁶

Wandering spleen may either be congenital or acquired. In the former type, the ectopic position of the spleen may be due to absence of the supporting phrenicocolic ligament or due to excessive length of the splenic pedicle. The acquired causes may be the stretching and elongation of the anchoring peritoneal folds or suspensory ligaments, or due to increased weight of the spleen, or the conditions which bring about relaxation of abdominal wall and the ligaments which support the abdominal viscera. Any of these factors may be the determining one. It seems that the main causes of the prolapse of the uterus and spleen are very much alike—that is, a laxity of the ligaments due to repeated pregnancies.—We are, etc.,

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¹ Bailey, H., and Love, R. J. McNeill, *A Short Practice of Surgery*, 11th edn., p. 372, London, Lewis, 1959.

² Maingot, R., *Lancet*, 1952, 1, 625.

³ Abell, I., *Annals of Surgery*, 1933, 98, 722.

⁴ Pearson, J. B., *British Journal of Surgery*, 1964, 51, 393.

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⁶ Simpson, A., and Ashby, E. C., *British Journal of Surgery*, 1965, 52, 344.

Rumination

SIR,—We were interested to read your leading article on rumination in infancy (2 October 1971, p. 3) and the association with oesophageal hiatus hernia. We would like to draw attention to an occurrence in an adult male.

In 1970 a 67-year-old farmer was admitted with a history of 25 years' variable digestive disorder and two mild attacks of haematemesis and melaena. For the past 12 years vomiting and loss of weight had been the outstanding complaints, worse at times of mental stress. Vomiting of up to one pint (0.6 l.) was seen to be effortless, apparently not self-induced, and not followed by remastication or reswallowing of any vomitus in the mouth. Clinical examination was always negative except for a "strange, smiling demeanour," remarked in previous case records. Acid values in the stomach, gastric cytology, gastroscopy, and routine barium meal, all previously performed, were reported negative. Furthermore, no abnormality had been found at three laparotomies in the past 15 years, and pyloroplasty and posterior gastrojejunostomy were performed at the second and third respectively.

A report on a further barium meal examination with cineradiography was: "The oesophagus showed a considerable amount of distension with air and a reflux of barium freely occurred into the oesophagus from the stomach. The gastroenterostomy functioned normally and there was no hold-up or delay to be seen. A remarkable reflux of barium into the oesophagus occurred, associated with a sliding type of hiatus hernia. This reflux appeared to be produced voluntarily by the patient. . . . The vomiting of the daily quantity of fluid appears to be part of a rumination process. The patient was able to produce the appearances with barium while being watched on screen examination. He did not appear to be consciously aware of this phenomenon."

Anatomical differences apart, it would seem that the movements in the upper part of the stomach were akin to those in rumination in animals. The interest lies in the mechanism of production of these movements, in the associated oesophageal hiatus hernia, and the psychiatric inadequacy. It has been suggested that the bolus of food in the ruminator is propelled to the mouth by contraction of the upper part of the stomach,¹ and that the raised intra-abdominal pressure induced by rumination weakens the anterior hiatal muscle, thus predisposing to the eventual development of an oesophageal hiatus hernia.² There is no doubt that after a repair of his hiatus hernia there was a dramatic improvement in the patient's state with no further vomiting and a gain of 9.07 kg over three months. Cineradiography in the diagnosis of an unusual case is clearly important and the results obviate the need for one or more operations.—We are, etc.,

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¹ Long, C. F., *American Journal of the Medical Sciences*, 1929, 178, 814.

² Marchand, P., *Thorax*, 1957, 12, 189.

The Queen's Shilling

SIR,—I read with interest the report on the B.M.A.'s memorandum of evidence to the committee of inquiry into the armed Forces medical, dental, and nursing services (*Supplement*, 15 January, p. 15) and also your leading article, "The Queen's Shilling" (15 January, p. 126). I have recently voluntarily retired from the Navy and re-entered civilian practice.

I have always disagreed with the B.M.A.'s contention that integration of the three armed Forces medical services was undesirable. I appreciate that loyalties develop, but I am convinced that the real problem of recruitment lies in the need for a career structure which offers clinical scope and opportunity similar to N.H.S. practice. Promotion tied to rank often leads to promotion out of the clinical field in which the doctor has chosen to practise. The service retiring age of 57 or 60 is a further disincentive. There is a need for avenues of entry at all levels of specialist training where vacancies exist, and the practice of demanding up to two years' notice of intention to retire or resign surely belongs to the dark ages. Salaries now paid to service medical officers are on the whole very satisfactory, and few permanent officers or their wives grumble much about frequent moves. What is lost is often gained by the enjoy-