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STRANGULATED FEMORAL HERNIA—

A RICHTER'S TYPE CONTAINING CAECUM AND BASE OF APPENDIX

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STRANGULATED femoral hernia is common, but a strangulated Richter's femoral hernia of caecum with base of appendix resulting in gangrene of the involved parts is rare. The following is the report of such a case.

Case Report

Mrs. M. E. R. (79 years), unipara, presented on 3rd April, 1964, to her own doctor for sudden increase in the size of a five-week-old lump in her right groin. This was associated with local pain and tenderness but no abdominal pain. There was no nausea or vomiting. Appetite was fair. Bowels had been constipated for the past twenty-four hours. Her own doctor treated this as an inguinal adenitis and incised it as an abscess on 5th April, 1964, when he found some evil-smelling pus. A physician attended the same evening for this patient's fibrillating heart and he advised surgical opinion for the lump in the groin. On 6th April, 1964, she was brought to the Casualty Department and the writer examined her there.

Examination: A frail lady. Temperature, 99.2°F. Pulse, 92 per min., fibrillating. Per abdomen - soft: no masses felt. No tenderness except in the right groin. Bowel sounds normal and present all over. Per rectum - no mass, tenderness or discharge. The lump measured 2½ inches by 1½ inches—situated mostly below the inguinal ligament and lateral to the pubic tubercle and was fluctuant. Overlying skin was partly necrotic. Femoral arterial pulse felt but was feeble. No significant findings in spine or lower limb. Admitted as a case of strangulated right femoral hernia with gangrenous contents, possibly of Richter's type.

The writer operated upon her the same evening and the following is a brief summary of the operation.

Operation: APPROACH.—Modified McEvedy, as advocated by Ogilvie (1959). FINDINGS.—(Diagram)

- (1) Femoral hernia containing a part of caecal wall and the base of the appendix.
- (2) Oedema of peritoneum surrounding the femoral ring for an area of two inches in diameter.
- (3) No significant free peritoneal fluid.
- (4) That part of the caecum and appendix lying in the main peritoneal cavity was viable.

Procedure: The general peritoneal cavity was carefully packed. The groin lump was then exposed by incising the partially necrotic skin and the femoral hernial sac exposed. The sac contained masses of faecal matter and nearly sloughed-out gangrenous portions of caecum and base of appendix. The contents were cleared and the cavity washed with normal saline. Attention was then directed to the abdominal aspect of the wound, when the rest of the caecum and congested appendix were drawn up easily onto the surface. The rest of the appendix was excised. The caecal wall was then repaired in two layers; the femoral ring closed with one purse-string suture of catgut from above; the groin wound drained and the upper wound closed in layers.

Progress: The patient made a satisfactory recovery and six weeks later was found to be well.

Discussion

Strangulated femoral hernia is a common surgical emergency. The incidence of colon in femoral hernia is about 2% (quoted in Maingot, 1955) that of appendix about 1% (Wakeley, 1938). The latter found one case of strangulation of the appendix out of five cases of femoral appendicitis. Frankau (1931), in a series of

FIG. 1.—(a) Femoral artery (d) Portion of appendix in main peritoneal cavity
(b) Femoral vein (f) Terminal ileum
(c) Strangulated Richter's hernial contents (g) Mesentery of the ileo-caecal region
(e) inside femoral hernial sac

Note that part of the caecum and base of the appendix lie inside the sac. The stippled area denotes faecal matter.

680 strangulated femoral hernias, found caecum and appendix in four cases only. Of the Richter's variety he found only one case of caput caecum but not associated with appendix. Shepherd (1960) said he had not seen one case of strangulated femoral hernia containing caecum. Although Wakeley (1938) reported retrograde strangulation of appendix in several cases, he did not report a case associated with Richter's caecum. In the preceding nine years (1955 - 1963) in this hospital, in a series of 45 strangulated femoral hernias there was no case of Richter's femoral hernia of caecum with appendix.

Diagnosis of the contents of Richter's femoral hernia containing caecum or appendix is only possible at operation. A variety of conditions can mimic it — inguinal adenitis, with or without abscess; strangulated inguinal hernia, thrombosis of saphena varix, psoas abscess — to mention a few. However, with a careful history and clinical examination, a practical useful diagnosis can nearly always be made. If there is any

doubt about the diagnosis or if femoral hernia is considered operation must be undertaken, for in a strangulated femoral hernia mortality rises higher with the lapse of time. Unfortunately many cases of Richter's hernia do not come under treatment before 48 hours or more (60% of the cases in Frankau's series, 1931). The same author found in his analysis a mortality figure of 35.1% when measures other than simple release of gut were necessary. Douglas (1942) also stresses the importance of early diagnosis and treatment.

Summary

1. A case of Richter's femoral hernia containing portion of caecum and appendix base — both gangrenous — possibly because of pressure effect, is reported here.
2. Once again the diagnostic difficulties are emphasised.
3. A plea is made to operate as an emergency on every suspected case of strangulated femoral hernia or a doubtful, painful swelling in the groin.

I wish to thank Mr. A. H. Thomson, the Consultant General Surgeon, General Hospital, Burnley, Lancashire, under whose care this case was admitted and whose constant encouragement and help made this report possible. I would also like to thank Miss Wardle, the Librarian at the Royal College of Surgeons of Edinburgh, for her help in arranging the bibliography.

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HEREDITARY HAEMORRHAGIC TELANGIECTASIA WITH PULMONARY ARTERIO-VENOUS FISTULAE

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HEREDITARY haemorrhagic telangiectasia was described by Rendu (1896), Osler (1901) and Weber (1907). Whitaker (1947) reported two patients with hereditary haemorrhagic telangiectasia and cavernous haemangioma (arterio-venous fistula) of the lung. He suggested that the lung lesion was a manifestation of hereditary telangiectasia. This association is relatively uncommon.

Case Report

A European married woman aged 35 years was admitted to hospital in November 1965 for treatment of a rectal neoplasm. On 4th November, 1965 abdomino-perineal resection was carried out and histological examination of the operative specimen was reported as showing malignant change in an adenopapilloma. Eight hours post-operatively the patient developed a right hemiparesis which gradually resolved during the following week. On the 20th December 1965 she suddenly developed left pleuritic chest pain accompanied by sweating, tiredness and transient weakness and paraesthesiae of the left hand. One week later she experienced right pleuritic pain and was referred to this unit for assessment of her chest symptoms.

The patient had had pertussis at the age of 10 years and following left pleurisy at the age of 20 she had suffered from an unproductive cough and exertional breathlessness. In 1957 appendicectomy was performed. A fibroadenoma was removed from the right breast in 1962 and she was first noticed to have gross clubbing of the fingers at this time. She gave a history of frequent nose bleeds since childhood, the epistaxis usually occurring spontaneously and being more copious during menstruation. The patient's son and two nieces also suffer from recurrent epistaxis.

On admission the patient was noted to have marked clubbing of the fingers and slight central cyanosis. No abnormalities were detected on palpation or auscultation of the precordium. A loud systolic murmur was audible over the right lower lobe, maximal in intensity in the mid-axillary line. The intensity of the murmur was increased by deep inspiration and diminished by the Valsalva manoeuvre. There were telangiectases on the

mucosal aspects of the upper and lower lips, tongue, palate and nasal mucosa and one telangiectasis on the conjunctiva of the right upper eyelid. The optic fundi were normal and liver and spleen were not palpable.

Chest X-ray showed a rounded opacity 2 cm. in diameter in the periphery of the right lower zone and four small opacities approximately 0.5 cm. in diameter inferior to the large opacity. Tomograms of the right lower zone showed that the large opacity had a comma-like configuration with two large vessels communicating with it (Fig. 1). The presence of these vascular communications was confirmed on screening of the chest although the Valsalva manoeuvre did not produce any noticeable change in the size of the opacity. It was decided that this radiological abnormality was due to pulmonary arterio-venous fistulae. Bronchography showed minimal bronchiectasis of the left lower lobe.

Investigations: Hb. 84% (12.3 g./100 ml.; PCV 42%; MCHC 29.5%; WBC 6,500/cu. mm., normal differential; platelets 255,000/cu. mm.; ESR 11 mm./hr. Arterial blood gas analysis at rest gave the following results: oxygen saturation 84%; carbon dioxide content 40.4 ml./100 ml.; pH 7.46; carbon dioxide tension 30 mm. Hg. Ventilation tests showed a forced vital capacity of 3100 ml.; FEV₁, 1900 ml. ECG, left axis deviation; flat T waves in leads II, III and aVF.

A diagnosis of hereditary haemorrhagic telangiectasia with pulmonary arterio-venous fistulae was made. Histological review of the rectal tumour and of the breast fibroadenoma did not show any abnormal vascular components. These lesions were presumably unrelated to the hamartomatous syndrome. Measurement of lung volumes, exercise studies and pulmonary angiography were not undertaken since it was considered unjustifiable to subject this unfortunate patient to further anxiety and discomfort. At present it is proposed to observe her at regular intervals.

The patient's son, aged 12 years, and two nieces, aged 16 and 11 years, have been examined because of their history of epistaxis. The two nieces did not show evidence of telangiectasia but the patient's son has a number of telangiectases on his face and lips. It seems likely that he has hereditary haemorrhagic telangiectasia.