ACUTE APPENDICITIS ASSOCIATED WITH INTRAPERITONEAL HAEMORRHAGE FROM RUPTURE OF THE CORPUS LUTEUM

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More than 300 cases of intraperitoneal bleeding from rupture of the Graafian follicle or the corpus luteum have now been recorded, most of them within recent years. In a review of the literature, however, I have been able to trace only one case in association with acute appendicitis—that of Hoyt and Meigs (1936). Accordingly, the following case may be considered worthy of record.

Case Report

A housewife aged 31 was sent to hospital on October 3, 1940, as a case of acute appendicitis. Two days before admission she complained of the sudden onset of umbilical pain, which soon became localized to the region of the right iliac fossa. She vomited several times. The bowels were opened daily and there was no disturbance of micturition. The menstrual cycle was a regular one of 28 days, with a catamenia of 4 or 5 days. The last menstrual period had occurred twenty-six days before admission and had been normal. There was no leucorrhoea. She had never been pregnant, and had never had any previous attack of a similar nature.

On examination the patient was seen to be a well-nourished woman. Her temperature was 99.4° and pulse rate 100. The tongue was covered with a dense fur, and the breath was heavy. Tenderness was present in both lower quadrants of the abdomen, but was very pronounced in the right iliac fossa, where there was appreciable muscular rigidity. Blumberg's sign was positive. Vaginal examination was difficult because of extreme tenderness in the right fornix and pouch of Douglas, but no gross abnormality was detected.

A diagnosis of acute appendicitis was made, and under ether anaesthesia abdominal section was performed through a right lateral rectus incision. On entering the peritoneal cavity it came as a great surprise to discover some free blood. Further investigation revealed that there was a small pelvic haematocele and that the source of the bleeding was a slight but persistent ooze from rupture of a corpus luteum in the right ovary. The appendix, somewhat injected and oedematous, was seen to occupy a pelvic position lying close up to but not touching the right ovary. One mattress suture sufficed to arrest the oozing from the corpus luteum. The pelvic haematocele was then evacuated and the appendix removed. No further pelvic pathology was noted. The abdomen was closed without drainage.

The post-operative course was uneventful until the eleventh day, when signs and symptoms of a small pulmonary embolus developed. These soon cleared up, and the patient was discharged from hospital on the twenty-third day. The pathological report on the appendix was "catarrhal appendicitis."

Commentary

It is worth remembering that in young women acute abdominal symptoms may be caused by bleeding from rupture of the Graafian follicle about the mid-menstrual phase or from rupture of the corpus luteum later in the menstrual cycle. In the former the haemorrhage is usually slight, while in the latter it may be profuse. That it is possible to make a correct pre-operative diagnosis may be seen from the fact that of a series of 58 cases collected by Hoyt and Meigs at the Massachusetts General Hospital the diagnosis was proved to be correct at operation in no fewer than 17. Clinically, three types can be recognized, depending on the amount of haemorrhage: (1) massive cases in which the clinical picture is dominated by shock,

resembling the acute fulminating intraperitoneal rupture of a tubal pregnancy; (2) discrete bleeding, with signs of peritoneal irritation; and (3) slow bleeding, with the formation of pelvic haematocele.

The only constant and characteristic feature is the sudden onset of abdominal pain—usually in the right lower quadrant, since analysis of the reported cases shows that the lesion is commoner on the right side. Thus, in the diagnosis, acute appendicitis, rupture of a tubal pregnancy, and torsion of an ovarian cyst are the main conditions to differentiate.

There has been much speculation as to the aetiology of the condition. Wilfred Shaw (1927) remarked on the effect of trauma in determining bleeding from rupture of an ovary that is the site of congestion, from chronic pelvic disease, or from a normal ovary showing pre-menstrual congestion. It is remarkable, however, that in the recorded cases trauma has rarely been a factor. In some instances the act of coitus seems to have been the cause. Bimanual examination has also been cited as the precipitating factor, and it is interesting to note that Forssner believed that such bleeding almost always resulted from rupture of an ovarian pregnancy. In the case described above it is possible that some abnormal hyperaemia of the ovary due to the proximity of an acutely inflamed appendix was responsible for the rupture and subsequent bleeding from the corpus luteum.

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REFERENCES

- Hoyt, W. F., and Meigs, J. V. (1936). *Surg. Gynec. Obstet.*, **62**, 114.
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Medical Memoranda

Tetanus treated with Sulphapyridine

There is some evidence to suggest that sulphapyridine is of value in the treatment of anaerobic infections (Singer, 1940; M.R.C. War Memorandum, No. 2, 1940). Bryant and Fairman (1940) used it in a series of cases of tetanus, with results which they considered encouraging, but evidence that it is of definite value is still inconclusive, and further observations are needed. The following description of a severe case in which sulphapyridine was given in addition to the routine treatment with antitoxin and sedatives is of interest:

CASE REPORT

The patient, a previously healthy girl aged 10, trod on a nail and sustained a slight penetrating wound of the plantar surface of the right big toe. The wound was healing satisfactorily. Seven days later she complained of pain in the left side of the chest, and after a few hours her throat was sore and her jaw so stiff that she could not open her mouth properly. Twenty-four hours later she was given 3,000 units of antitoxin by her doctor and sent to hospital.

On admission she also complained of abdominal pain, showed risus sardonicus, and could separate her teeth only a quarter of an inch. Her neck was stiff, and there was tonic rigidity of the muscles of the trunk, with arching of the back sufficient to allow the flat hand to be passed under the spine without difficulty when she was lying at full length. There was some tendency to reflex irritability, but no reflex spasms had occurred. The slight wound on the toe had almost healed and looked healthy. 200,000 I.U. of antitetanus serum was given intravenously and a further 10,000 units injected into the tissues round the base of the injured toe. There appeared to be nothing in the wound to treat. Sulphapyridine was also given, and she received 7 grammes in the first twenty-four hours and 6 grammes in the