Evidence that IUDs or a high dose of oestrogens taken post-coitally decrease endometrial carbonic anhydrase, and subsequently prevent uterine implantation.

Conclusion
Ovarian ectopic gestation is relatively rare and usually difficult to recognize before laparotomy. It is almost always ruptured at the time of exploration. The increasing reported incidence of ovarian pregnancy has a close relationship to the increased usage of IUDs and also to the greater awareness of physicians to this type of ectopic pregnancy. Specifically, more haemorrhagic ovaries are being subjected to wedge resection or total removal and careful sectioning for detection of ovarian pregnancy.

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References


Septic abortion due to invasive Salmonella agona

A. P. BALL
B.Sc., M.B., Ch.B., M.R.C.P. (U.K.)

East Birmingham Hospital (Department of Communicable and Tropical Diseases), Birmingham B9 5ST

R. FOTHERGILL
M.B., Ch.B., M.R.C.S., L.R.C.P.

was admitted to hospital with a 2-day history of malaise, fever and lower abdominal pain followed 24 hr later by rigors and vaginal bleeding containing products of conception. On admission, she was flushed and sweating with a pyrexia of 39.4°C, a tachycardia of 100 and a blood pressure of 120/70 mmHg. The abdomen was distended and there was guarding and tenderness in both iliac fossae. Vaginal examination revealed fresh blood appearing from a soft, one-finger dilated cervix and bimanual examination elicited marked tenderness of the uterus and the lateral fornices. A diagnosis of incomplete septic abortion was made and the patient received ampicillin 500 mg i.m. followed by amoxycillin 500 mg/8 hr thereafter. The vaginal bleeding continued and another vaginal examination revealed a further-dilated cervix with placental remnants protruding.

SEPTEC abortion is rarely associated with organisms other than clostridia, staphylococci, streptococci and anaerobes which are introduced into the uterus. Septic abortion occurring as a complication of an invading blood-borne pathogen is extremely uncommon. The present patient is interesting in that Salmonella agona, which until 1970 was an unusual serotype (Leading Article, 1971), was the cause of a septic abortion due to intrauterine infection consequent on a septicemic illness.

Case report
The patient, a previously healthy 28-year-old primigravid housewife, who was 14 weeks pregnant,
Attempts to remove these with sponge forceps were unsuccessful and on day 3 of admission uterine evacuation and curettage was performed.

Haemoglobin was 11.2 g/dl; WCC 6700; ESR 86. Initial blood cultures were negative but *S. agona* was grown from a mid-stream urine specimen, high vaginal swab and from the curettings. The organism was sensitive to ampicillin, sulphonamides, cotrimoxazole, nalidixic acid and nitrofurantoin.

Following operation, the patient, for the first and only time, developed mild diarrhoea lasting 24 hr. Stool cultures were positive for *S. agona* and the Widal reaction was positive, TO 1/1600 BO 1/125, a cross reaction compatible with *S. agona*. Amoxycillin was continued for 7 days, the pyrexia having remitted by day 2 of admission. Subsequent stool cultures remained positive and the patient was discharged well after 10 days.

**Discussion**

This patient suffered an illness suggestive of septicaemia during which septic abortion occurred. *Salmonella agona* was isolated from the uterine curettings and conceptus and, although the blood culture was negative, the positive Widal reaction provides further evidence of an invasive *S. agona* infection with subsequent invasion of the uterine contents. Isolation of the organism from the urine might also indicate an invasive illness although the possibility of vulval contamination of the specimen by *S. agona* was high. The absence of leucocytosis is in keeping with an invasive salmonellosis. Patients with salmonellosis due to non-enteric organisms, may suffer a ‘septicaemic’ or ‘typhoidal’ illness (Christie, 1974) and this patient, having none of the typhoidal features (splenomegaly, rose spots), is considered to have been a septicaemic case.

No previous report of *S. agona* causing septic abortion could be found in the literature and reports of septic abortion consequent on salmonellosis are rare (Vorburger et al., 1974). Saphra and Wasserman (1954), in a review of 329 infections with *S. cholerae-suis*, found four cases of whom two had organisms recovered from the uterus, but could add no further cases in an extended study of 7779 infections with all *Salmonella* spp. excluding *S. typhi* (Saphra and Winter, 1957). Huckstep (1962) recalls two cases of miscarriage in association with typhoid fever, but does not state whether these cases were a true septic complication or purely an intercurrent phenomenon. The phenomenon is, therefore, rare but the possibility of its occurrence should be borne in mind in any pregnant woman in whom bacteraemia is suspected in the course of a gastroenteritic illness.

*Salmonella* infections are common and are usually considered trivial. This report indicates their potential to produce severe life-threatening disease.

**References**


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A. P. Ball and R. Fothergill

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