Hysterectomy for septic abortion — is bilateral salpingo-oophorectomy necessary?

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Summary

Ovarian conservation at the time of hysterectomy for complicated septic abortion is important in this young population group. In a retrospective study, the histological evaluation of the ovaries of 25 patients were compared with the macroscopic description in the operation reports. In 72.3% of the ovaries examined there was no infection. None of the ovaries described clinically as normal at laparotomy showed histological signs of infection. The clinical assessment of infected ovaries was false-positive in 40% of cases but there was no false-negative decision-making. It is concluded that ovaries which appear normal at hysterectomy for septic abortion should be conserved.

Maternal mortality rates in septic abortion with associated septic shock or generalised peritonitis remain high despite early resort to abdominal hysterectomy and intensive care. It has been the policy in this department to carry out total abdominal hysterectomy and bilateral salpingo-oophorectomy in patients with septic abortion who come to laparotomy. The decision to remove the ovaries does not present a problem when they are obviously diseased, for example as a part of a tubo-ovarian abscess. A dilemma does, however, arise when the ovaries appear normal, especially in a young patient. Should they be removed because of the potential danger of micro-abscesses, or can they be conserved?

Older reports unequivocally recommend hysterectomy with adnexectomy, but recently there has been a tendency towards ovarian conservation.

A retrospective study was undertaken to evaluate the conditions of the adnexa routinely removed at the time of hysterectomy for septic abortion and also to identify those ovaries that could be conserved.

Patients and methods

The hospital records of all the patients who underwent hysterectomy for septic abortion were reviewed for the 3-year period January 1984–December 1986. The study group comprised members of the black population drawn mainly from the Pretoria metropolitan area. Kalafong Hospital is also a referral centre for the northern and north-eastern Transvaal.

The main indications for laparotomy were: (i) failure to respond to medical treatment and curettage; (ii) aspiration of pus on posterior culdocentesis; and (iii) septic abortion associated with septic shock and/or renal failure not responding rapidly to conservative measures.

For histological examination of the removed ovaries a preparation of one transverse section per macroscopic normal ovary (ovarian epithelium, stroma of the cortex and medulla, and mesovary) was used. Additional sections were made from any macroscopic abnormality of the ovary.

Results

During the 3-year period under review, 4058 patients were admitted to Kalafong Hospital with the diagnosis of incomplete abortion. This represented 30.1% of all the gynaecological admissions. In 811 patients (19.9%) the diagnosis was septic abortion. Of these, 33 (4.1%) underwent hysterectomy. Six patients had to be eliminated from the study because their hospital records were not available, and 2 patients had a total abdominal hysterectomy without adnexectomy. The study group therefore consisted of 25 patients.

The mean age of the women was 26.6 ± 5.98 years with a mean parity of 1.9. The majority of patients (76%) were admitted in the second trimester of pregnancy. A history of interference in an attempt to procure an abortion was obtained from 12 patients (44%). Three patients underwent total abdominal hysterectomy and unilateral salpingo-oophorectomy (patients 11, 12 and 19). All the other patients had a total abdominal hysterectomy and bilateral salpingo-oophorectomy. The mortality rate was 16%. A total of 47 ovaries were therefore available for histological examination. Thirty-four of these ovaries (72.3%) revealed no lesions (cases 1–21), although 9 (19.2%) had been reported to be infected (cases 19–24). Four ovaries (8.5%) showed degenerative changes of bleeding, oedema and necrosis (cases 17, 18 and 25). The majority of infected ovaries (7 out of 9) were found at laparotomy to be part of a tubo-ovarian abscess (cases 19–23).

A description of the adnexa at the time of laparotomy was available for 20 of the 25 patients (80%). The clinical appearance of the ovaries was described as abnormal in 20 specimens (cases 13–25); histological examination did not confirm this in 8 (cases 13–16). None of the ovaries described as normal at laparotomy showed histological signs of infection. In 16 ovaries there was associated thrombosis of the vessels in the infundibulopelvic ligament. Only 3 of these ovaries showed infection (cases 20, 24) and in 2 degenerative changes were noted (cases 17 and 18). Eleven ovaries (60%) were normal in spite of thrombosis of the ovarian vein. In 60% of patients with ovarian vein thrombosis, the thrombosis affected both infundibulopelvic ligaments. On histological examination 85.1% of fallopian tubes were found to be infected. Table I compares the findings at laparotomy with the histological examinations.

Discussion

The patient population compared favourably with other septic abortion studies in the RSA for age, parity, rate of interference and mortality. The necessity for hysterectomy in a patient...
with septic abortion associated with septic shock, renal failure, generalised peritonitis and where conservative treatment has failed is generally accepted. Whether oophorectomy is always necessary, is still debatable. We are of the opinion that normal ovaries are often removed unnecessarily when there is a policy of routine bilateral salpingo-oophorectomy as part of a hysterectomy for septic abortion. The 95% confidence interval for the true percentage of normal ovaries in this study lies between 56.4% and 81.2%. Although the affliction of the left and the right ovary are dependent events, this statistical analysis is done for the independent events because the decision on ovarian conservation or oophorectomy is made for each ovary individually and independent from the condition of the opposite ovary. If an adequate clinical examination is made at the time of laparotomy, it is possible to assess the condition of the ovaries fairly accurately. This clinical assessment was false-negative in 40% of cases, but in no case was false-negative information recorded in our patients (Table I). The observation that only one-third of ovaries were histologically abnormal in patients with ovarian vein thrombosis suggests that ovarian conservation is feasible even in these patients. This is an important issue because ovarian vein thrombosis tends to occur bilaterally (60%).

In conclusion, we feel that it is imperative that hysterectomy in cases of septic abortion should be accompanied by bilateral salpingectomy since the fallopian tubes are usually infected. On the other hand, there is a definite place for ovarian conservation in this young population group. One should rely on clinical assessment of the ovarian state at the time of laparotomy. If an ovary appears normal it should be conserved. Macroscopic abnormality of the ovary and a patient aged over 40 years are indications for oophorectomy. The management of a patient with normal ovaries in cases of bilateral ovarian vein thrombosis is uncertain and should be further investigated. This retrospective study reveals the need for a prospective study to determine the outcome in patients in which one or both ovaries were conserved and to what extent these ovaries are functional.

REFERENCES