A CASE OF GANGRENE OF UTERUS FOLLOWING CAESAREAN SECTION

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Introduction

Nature has provided uterus with bilatetral dual vascular supply—two uterine arteries and two ovarian arteries giving it an amazing power of establishing collateral circulation within a very short time, when a part of the main source is cut off. Hence gangrene of the uterus is a very rare event. Before the days of antibiotics this condition was sometimes met with during the second or the third week of puerperium. Due to discovery of newer and newer antimicrobial agents with their wide range of action, the possibility of this pathological entity is very rare now-a-days. Nevertheless, gangrene of the uterus per sé may again be encountered in obstetrics when operative procedures are being undertaken in unfavourable situation. This is also being encouraged by the development of newer strains of bacteria—resistant to broad spectrum antibiotics in common use. Now-a-days, the indications for caesarean section have been widened and sometimes caesarean section has to be done in some adverse conditions (lack of adequate aseptic measures, low general condition of the patient, prolonged labour with infection, etc.) when chances of infection during the post operative period are onsiderable.

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Case Report

Mrs. A. P., aged 25 years, housewife of a middle class family was admitted to Eden Hospital on 31-5-1971 with the complaints of intermittent bleeding per vaginam and irregular high rise of temperature for 20 days.

She had caesarean section on 8th May, 1971 at a District Hospital for prolonged labour due to uterine prolapse. She received two bottles of blood transfusion during the operation. From the third post operative day she had bleeding per vaginam which was profuse on the 13th day when dilatation and curettage was done by a local doctor. After 10 days she again started severe bleeding.

She had three term normal deliveries and one previous spontaneous abortion.

On examination she was pale and poorly nourished. Pulse—100/min., B.P.—90/65 mm. of Hg. There was a decubitus ulcer over the posterior aspect of the scalp. The systemic examination did not show any abnormality.

Abdominal examination revealed a midline infraumbilical healthy scar of about 4″ in length. The lower abdomen was tender. No definite mass could be palpated due to tenderness.

On vaginal examination, the uterus was bulky and retroverted. Both fornices were tender.

Investigations

Hb.%—4 gm%. R.B.C.—1.5 million/c.mm. total W.B.C. count—8500/c.mm.; poly—

70%, lympho—27%, eosino—3%, P.C.V.—15%, M. C. V. — 100 cμ. M.C.H. — 26 μμ. M.C.H.C.—26%.

Urine Culture—No growth.

Vaginal Swab culture (Aerobic)—No growth.

A clinical diagnosis of secondary post-partum haemorrhage was made and conservative treatment with rest, sedatives, antibiotics and blood transfusion etc. was carried out.

Immediate treatment—Inj. Terramycin 100 mg. I. M., 6 hourly; 300 x 3 bottles of group 'O' Rh. + ve blood was transfused.

On 6-6-1971—she had profuse bleeding and 4 bottles of blood was transfused.

On 9-6-1971—Exploration and dilatation and curettage was done under general anaesthesia.

Uterus—well involuted, retroverted, shifted to the left by a small mass in the right fornix about the size of a duck's egg. Bleeding was still present. Some blood clots with shreds of tissue which was then thought to be decidual or placental tissue, were taken out.

On 17-6-1971—Patient had another bout of bleeding when 300 c.c. of blood was transfused. She was running temperature with rigors, ranging from 100°F to 105°F since her admission.

On 18-6-1971—Examination under anaesthesia revealed retroverted uterus 10-12 weeks' size, os—open. Blood clots with shreds of? decidua? muscular tissue were removed. The uterine scar appeared to be thin and? gaping at the central part. After exploration there was profuse bleeding and uterus was packed but the bleeding, was not controlled. Therefore, laparotomy followed by hysterectomy was decided upon. On opening the abdomen the uterus 12 weeks' size, congested with blackish discolouration was observed. It was extremely friable. In fact, it had to be removed in pieces. Subtotal hysterectomy was performed.

Histopathological Report

(A) Of curetted material obtained on 9-6-1971, showed muscle and fibrous tissues, the latter being heavily infiltrated with chronic inflammatory cells. No endometrial tissue found.

(B) Of curetted material obtained on 18-6-1971, showed blood clots with massive inflammatory reaction.

(C) Of section of uterus showed picture of necrosis, chronic inflammation and formation of granulation tissue in the wall of the uterus. No endometrial tissue found (Fig. 1).

Postoperative period

The patient had fluctuating high rise of temperature which was controlled by antibiotics (inj. Reverin, later on inj. Kenamycin and ultimately Keflin—Cephalothin). Repeated blood transfusions (Totally 300 c.c. x 17 bottles of blood during her hospital stay) were given. Stitches were removed on 7th postoperative day. She was discharged from the hospital. She is now doing well.

Discussion

Gangrene of any organ is caused by either stoppage of blood supply or by fulminating infection. Torsion of the uterus in sufficient degree to cause gangrene is very rare in human being as the normal human uterus is held in position on both the sides by the uterine ligaments. Infection may due to cl. Welchii or other organisms like streptoccocus haemolyticus group A, anaerobic streptococci, staph. aureous and E. coli. Gas gangrene is a severe form of infection with different types of clinical features and is not the subject of discussion in this paper.

In puerperal sepsis caused by haemolytic streptococci Gr. A and anaerobic streptococci, there is thrombophlebitis of the pelvic veins. In severe cases the process may be bilateral with involvement of big veins and ultimately jeopardizing the blood flow to the uterus. "Metritis dessecans" or gangrene of the uterus is a grave and rare form of puerperal infection in which not only the endometrium but also the myometrium undergoes necrosis. In our case hectic rise of temperature with clinical features of septi-

caemia suggest that the condition was due to infection. Histological picture was also in favour. Leucocytosis below 10,000/c. mm. instead of a higher count as would be expected might have been due to the low general condition of the patient. The aerobic culture of the vaginal swab was negative and the infection might have been due to anaerobic streptococci. Prolapse with prolonged labour presumably favoured infection. However, a blood culture in these group of cases should be done. If possible the vaginal swab should also be cultured for anaerobic organisms.

With extensive and sometimes indiscriminate use of antibiotics, specially in hospital, resistant strains of bacteria have developed and pose a problem. For example, in this case the patient received antibiotics one after another without effectively controlling the infection which ultimately led to gangrene. After hysterectomy the infection could only be controlled with Inj. Keflin which was imported. This highlights further that prevention of infection even today remain as important as it used to be in preantibiotic days. The gangrenous area should not bleed profusely as there is stoppage of blood supply. The bleeding might have been from the disruption in the suture line. It may be noted that the area below the line of incision was not affected by the gangrenous process. Sloughing out of decidua leading to reopening of thrombosed blood vessels might have been the cause of earlier episodes of bleeding.

Conclusion

(1) A rare case of gangrene of the uterus is reported.

(2) A rare complication of caesarean section has been studied. Proper maintenance of asepsis inspite of antibiotics is stressed.

(3) In all cases of puerperal sepsis, both aerobic and anaerobic culture of high vaginal swab and blood culture should be done.

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See Fig. on Art Paper I