MANAGEMENT OF SECONDARY POST PARTUM HAEMORRHAGE FOLLOWING CAESAREAN SECTION AND POST CAESAREAN VAGINAL DELIVERY

by

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Introduction

Caesarean section is gaining much popularity because of improved anaesthesia, availability of wide range of antibiotics and facilities of blood transfusion; but the operation is not without danger.

The complications are usually precipitated in cases of ill-chosen indications, unsatisfactory operative conditions, inexperienced technique and bad timing.

Among difficulties encountered, post partum haemorrhage following caesasean section is one of the most serious as well as dangerous complications appearing even in second or third week of puerperium and sometime, proving fatal.

We are presenting here 7 cases of post partum haemorrhage following caesarean section and post caesarean pregnancy delivered by forceps or normally through vaginal route.

Case 1

Sm. B. D., 27 years, P2+O, was admitted on 8-9-77 in Eden hospital as a case of secondary P.P.H. since the 12th day following lower segment caesarean section. The bleeding was not controlled inspite of treatment by local doctor.

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Her first baby was born by LUCS for uterine inertia 3 years back, male living, puerperium was uneventful and was discharged on 9th post operative day.

Second baby was also delivered by LUCS on 28-8-77 in early labour and was discharged on 8th post operative day and was afebrile during this period. But secondary P.P.H. since 12th post operative day led to her hospitalisation.

General condition was fair, pulse-120/min., B.P.—95/60 mm. of Hg., Temp.—98.4°F. Heart and Lungs—NAD, Hb—9 Gm%, P/A—NAD, P/V—uterus R.V., 10 weeks size, os—patulous, Fornices—clear. Vaginal bleeding was present.

Conservative treatment was carried out with sedatives, antibiotics and methergin but slight oozing continued. Curettage was done on 6th day after admission, bit of membranes came out, but as frank bleeding continued uterovaginal pack was inserted and a bottle of group B +ve blood was transfused. Pack was removed after 24 hours. She was discharged on 11th day. Histopathological report—endometrium was non-secretory and no chorionic tissue was found.

Case 2

Mrs. L.P., 22 years, P1+O, post caesarean pregnancy was admitted on 1-6-78 with labour pain and dribbling of liquor amnii for nearly 6 hours.

Her first baby was born by caesarean section 3 years back for uterine inertia, female baby, living and puerperium was uneventful.

General condition was fair. B.P.—120/80 mm. of Hg. She had vertex presentation with good uterine contractions and no CPD.

She was confined normally with episiotomy, living female baby weighing 3 Kg. There was bleeding from vaginal laceration which was re-

paired under general anaesthesia. The uterine cavity was explored, only blood clots were taken out.

On 5th day she had a bout of vaginal bleeding and was treated conservatively with sedation and syntocinon drip. Internal examination was done under anaesthesia. Uterine cavity was found to be empty and the previous scar looked healthy. There was bleeding from a lacerated wound in the posterior, vaginal wall which was repaired.

Next evening, she had bleeding again for which syntocinon drip and sedative were given.

On Examination—G.C.—low, Pulse—132/min., B.P.—80/50 mm. of Hg., Ht./Lungs—NAD, Hb%—6 gm%. No coagulation disorder could be detected. Two bottles of blood, group A +ve was transfused.

Uterus was of 20 weeks size, flabby, not contracting properly. On vaginal examination blood clots were removed from the vagina and there was gaping of vaginal wound for which a vagina was packed.

The next day the pack was removed and uterine cavity was explored under G.A. Only a few bits of necrotic material with blood clots were found. As there was bleeding from the uterine cavity, uterus and vagina were packed. The pack was removed after 48 hours.

She had again severe bleeding after 4 days. At that time her general condition was very low pulse—140/min. B.P.—60/? Palor ++, Hb%—5gm%.

Immediate resuscitative measures were started and two bottles of blood was transfused. Total hysterectomy was done without any difficulty. The uterus was 20 weeks size, flabby, and vault was very friable. Six bottles of blood was transfused in post operative period.

On 7th post operative day she again started bleeding. Vagina was packed and two bottles of blood were transfused. Bleeding and clotting time was normal.

The post operative period was stormy with high temperature and gaping of abdominal wound. Secondary suture was done on 36th day and she was eventually discharged 46 days after confinement. H.P. report structure of endometrium and myometrium with plenty of inflammatory cell infiltration.

Case 3

Mrs. D. G., 34 years, P 1+ 0, admitted on 9-5-78 with severe P.P.H. following LUCS 3 weeks before in a nursing home.

On Examination—G.C.—very low, Anaemia +, B.P.—84/60 mm. of Hg., pulse—134/min., Hb%—6 gm%. She was recuscitated and 2 bottles of blood, group O + ve was transfused. After improvement of general condition the uterine cavity was explored under G.A. and infected decidual tissue with blood clots was removed. As she continued to bleed, laparotomy was decided on 13th day. On opening the abdominal cavity many adhesions were found. The uterus was bulky, flabby and catgut was hanging from the old scar. After separation of adhesions, subtotal hysterectomy was done as vaginal vault could not be approached due to extensive adhesions. The right sided uterine artery was found eroded and opened up partially with granulation tissue at the angle of the uterine incision. H.P. report—muscle tissue and endometrium, many blood clots and acute inflammatory cell infiltration.

Case 4

Mrs. M. S., 23 years, P1+O, admitted on 15-7-78 as a referred case from a Primary Health Centre for prolonged labour. Lower segment caesarean section was done on the same day for CPD, foetal distress and prolonged labour.

On 7th day she started bleeding and conservative treatment was started with sedatives, syntocinon drip and arrangement was made for blood transfusion. Moderate oozing continued, so exploration of uterine cavity was decided on the next day.

On Examination—uterus was flabby, 14 weeks size, external os patulous, fornices clear. On digital exploration no placental pieces or membranes were found; uterine scar was healthy A gentle curettage was done and the bleeding was controlled. One bottle of blood, group A +ve was transfused and syntocinon drip was continued for another 12 hours.

Post operative period was uneventful except slight temperature for 3 days. She was discharged on 16th post operative day. H.P. report—fragments of decidua and necrotic meterial with inflammatory cell infiltration.

Case 5

Mrs. B. B., P2+O, was admitted on 7-9-75 with history of vaginal bleeding on 17th post operative day following caesarean section done in a nursing home. She was treated there conservatively but bleeding was not controlled.

Her first baby was born by LUCS for CPD 5 years back. Second baby was born by caesarean section for post caesarean pregnancy and CPD.

Conservative treatment was started with sedatives, antibiotics, syntocinon and glucose infusion. Curettage was done on the next day. The uterus was normal in size, os patulous, fornices clear. Few bits of degenerated decidua, old blood clots and some necrotic meterial were taken out. The bleeding was controlled and she was discharged 7 days after admission. She was readmitted after 10 days of discharge with severe bleeding.

On Examination—G.C. was poor, P/R—100/20 min, B.P.—90/60 mm. of Hg., Temp.—98.6°F, Hb%—6 gm%.

Treatment was started with sedatives, antibiotics and blood transfusion. Curettage was done and few bits of necrotic material taken out. Bleeding time, coagulation time and platelet count were normal.

She was being treated for anaemia. On 21st day, she had severe bleeding again which compelled us to do hysterectomy as a life saving measure. Uterus was normal in size, On opening the uterine cavity there was a polyp ½" length hanging at the left angle of lower segment. (Figure) H.P. report—granulomatous polyp.

Case 6

Mrs. M. M., P3+O, was admitted on 7-12-75 with severe vaginal bleeding 15 days after caesarean section. Obstetric history—1st pregnancy—full term normal delivery. Second—LUCS for A.P.H. and the last section for post caesarean pregnancy. Puerperium was uneventful and she was discharged on 8th day.

On admission—G.C. was very low, pulse almost imperceptible B.P. could not be recorded. Hb%—4 gm%. Treatment started with sedatives, antibiotics and syntocin drip. Three bottles of blood, group O +ve was transfused but her general condition did not improve.. She expired 10 hours after admission. Postmortem examination was not permitted by the party.

Case 7

Mrs. M. G., 25 years, P2+O, was admitted on 10-6-78 with history of severe vaginal bleeding since morning, on the 21st day of puerperium.

Obstetric history—1st baby was born by lower segment caesarean section for foetal distress, male, living, and her puerperium was uneventful.

Second baby was born by low forceps with episiotomy. Puerperium was uneventful. Discharged on 7th day and was afebrile during this period.

On Examination—G.C.—fair, Pallor +, P/R—120/20/min., B.P.—106/70 mm. of Hg. Hb%—6.6 gm%. P/A—NAD, P/V—os patulous, uterus bulky. Blood clots and placental bits were removed from vagina.

Treatment started with sedatives, antibiotics syntocinon drip and blood transfusion. As bleeding continued curettage was done on 12-6-78, uterus was bulky. Necrotic material with placental tissue were taken out. Bleeding stopped and she was discharged on 15-6-78. H.P. report—placental polyp and endometrium shows non secretory phase and plenty of inflammatory cells.

Discussion

Secondary haemorrhage is more common after caesarean section, according to Tandon and Jungalwala (1969). Subinvolution is the common cause due to factors like retained bits of placenta and/or membranes, haematoma or rarely fibromyoma. In our series, 1 case has retained bits of placenta and showed sign of inflammation.

Dollenbach and Miller (1969) stated that necrosis of caesarean section scar is responsible for secondary P.P.H., although pathogenesis is under discussion. The surgical technique appears to be the most important cause. Necrosis of uterine wall occurs from a bad scar following inadequate suture causing ischaemia.

Poidevin and Bachner (1958) observed that haemorrhage from dehiscence of the scar which varies from minor to massive degree is due to involuntary inclusion of endometrium in the scar during uterine suture which is responsible for necrosis and week scar formation.

According to Fitzgerald (1962) etiology

of haemorrhage is necrosis of the wound margin with subsequent slough formation. The slough separates piecemeal or get dissolved by phagocytic action and fresh granulation tissue forms which bleeds. Sometimes excess of granulation tissue leads to formation of granulomatous polyp which may erode the blood vessel and cause massive haemorrhage.

In our series, 1 case showed granulomatous polyp formation, while in other instances erosion of blood vessels by granulation tissue with signs of inflamation were detected.

Sen and Mitra (1975) from Eden Hospital reported 4 cases of secondary P.P.H. following caesarean section; repeated haemorrhage was from dehiscence of lower segment caesarean scar. In 2 cases they had to do hysterectomy, 1 needed resuturing and in the other exploration with tight utero-vaginal pack and blood transfusion were done.

In our series we had to do hysterectomy in 3 cases on 13th day, 55th day and 34th day of puerperium. In all cases subinvolution, slough formation, excessive granulation tissue formation, erosion of blood vessel and infection led to secondary P.P.H.

Duckman and Suarez (1970) showed that basic cause is retained placental tissue, but fragments may not directly cause bleeding. Prolonged retention may produce surrounding inflammatory reaction which interferes with thrombosis and obliteration of the contiguous blood vessels. Eventually when fragment separates haemorrhage occus. In our series, 1 case showed retained bits of placenta with inflammatory change which caused haemorrhage even on 21st day of puerperium.

Summary

Seven cases of secondary post partum haemorrhage following caesarean section and post caesarean vaginal deliveries are presented. Out of these 7 cases, 2 showed granulation tissue formation of which one had granulomatous polyp at the angle of incision and in the other case erosion of blood vessels at the angle of incision was the cause of bleeding. In 1 case a piece of undissolved catgut was also found in the incision line. Infection was responsible for secondary haemorrhage in most of the cases. Five out of 7 cases showed signs of infection of H.P. examination.

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See Fig. on Art Paper II