

Dehiscence of Fundal Scar Case Presentation

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Abstract

A young para one lady in the last weeks of her second pregnancy, when she was exposed to a sudden gunshot injury which killed her daughter and ended in ruptured uterus with multiple injuries to the thigh and abdomen which treated accordingly.

After that she suffered from sacondary infertility after two missed abortions which was treated by colmiphene citrate and the patient succeeded to be preganat (twin), so an elective caesarean section was planned, but on the same night labour pain started ended by a dehiscence of fundal scar of previous injury which treated urgently and fortunately we saved her life and the babies life.

Two years later another elective caesarean section was made and she delivered a healthy baby girl.

So as it is rare condition, I decided to introduce it.

Aim of the study

1-Study the proper indications of ceasarean section.

2-Special care for previous scar during pregnancy and labor.

3-Choosing the proper time for elective ceasarean section.

4-Study the exact causes of rupter of the uterus.

5-Sterilization is indicated in a patient with fundal or classical scar.

Case Presention

A young pare one lady was sitting in her home in the last weeks of her second pregncy in 1991, when she was exposed to a sudden gunshot injury which killed her daughter immediately and cause multiple injyries in her abdonen and thighs.

The patient was transfered to Hilla republic hospital in state of shock, an emergncy laparotomy was made on the same night which revealed injury to the gravid uterus and a dead femal fetus which was cut into two pelces.

Suturing of the ruptured fundal area was done with sutring of the thigh injury.

The patient treated by massive blood transfusion and heavy antibiotics, then discharged home in good condition.

After one year the patient unfortunately got two missed abortions, then she complained from secondary infertility, so we put her on clomiphene citrate and the patient succeeded to be pregnant (twin) and when she reach 36 completed weeks, the patient was admitted to Babylon hospital for maternity and children and arrangement was made to deliver her by elective cesarean section.

But at the same night, the patient started labor pain, so an emergency lower segment cesarean section was made and we discovered a dehiscence of fundal scar of previous injury, but fortunately both babies boys were still alive.

So suturing of the incomplete rupture was made, post operative period was uneventful.

We advice her against pregnancy for at least one year but after one year she became pregnant again and when she reach 37 completed weeks, an arrangement was made to deliver her by elective lower segment cesarean section and at the time of operation we found multiple adhesion of the bowel and omentum to the fundus of the uterus, delivery of a health baby girl was done with suturing of the uterus and careful and delicate dissection of the bowel from the uterus was made.

So this lady was exposed to a rare accident (gunshot injury) during pregnancy which was complicated by dehiscence of fundal scar in the subsequent pregnancy.

Dehiscence of Fundal Scar.

Dehiscence of fundal scar is a rare condition as it is an incomplete rupture of the uterus and it may, of course, become complete at any instant⁽¹⁾ and as it carry a high recurrence rate as compared with other types of the scars.

So it is important to differentiate between rupture of cesarean section scar. Rupture uterus, at the minimum, to separation of the old uterine incision throughout most of its length, with rupture of the fetal membranes so that the uterine cavity and the peritoneal cavity communicate. In these circumstances, all or part of the fetus is usually extruded into peritoneal cavity, In addition, there is usually bleeding, often massive, from the edges of the scar or from an extension of the rent into previously uninvolved uterus.

By contrast, with dehiscence of a cesarean section scar, the fetal membranes are not ruptured and the fetus is not extruded into the peritoneal cavity.

Typically, with dehiscence the separation does not involve all of the previous uterine scar, the peritoneum overlying the defect is intact, and the bleeding is absent or minimal.

Major cases are

1-Weakness of myometrium secondary to previous surgery:
-cesarean section
- myomectomy
-metroplasty
2-Difficult operative delivery:
-breech extraction
-difficult forceps
3-Trauma:
-gunshot wound*
-motor Vehicle accident
4-Inappropriate use of oxytocin.

*In our case the cause of ruptured uterus (fundal area) in her second pregnancy was gunshot injury while the cause of the dehiscence of fundal scar in the third pregnancy was weakness of myometrium secondary to previous fundal repair which started at the time of labor.

Risk of uterine rupture depend on scar location as shown in this table⁽³⁾ :

Previous uterine incision	Incidence of uterine rupture%
Low segment transverse	0.2 - 2.3
Classic	4.3 - 8.8
T- shaped incision	4.3 - 8.8
Low vertical	0.5 - 6.5

Dehiscence occurs gradually, where as ruptures are very likely to be symptomatic and, at times, fatal.

With labor or intra uterine manipulation, a dehiscence may become a rupture.

The incidence of uterine rupture is approximately one in 1500 deliveries.

Etiology

Uterine rupture may develop as a result of preexisting injury or anomaly, or it may complicate labor in a previously unscarred uterus.

Clinical Course

The symptoms and physical findings may appear bizarre unless the possibility of rupture of the uterus is kept in mind.

If the accident occurs during labor, the woman, suddenly complains of

- 1-A sharp, shooting pain in the abdomen and may cry that " something ripped "or" something tore" inside her.
- 2-Cessation of uterine contractions.
- 3-Disappearance of fetal heart tones.
- 4-Recession of the presenting part.
- 5-Vaginal hemorrhage-followed by the signs and symptoms of hypovolemic shock and hemoperi-

toneum.

Complications

- 1-Hemorrhage.
- 2-Shock
- 3-Post operative infection.
- 4-Ureteral damage.
- 5-Thrombophlebitis.....
- 6-Amniotic fluid embolus.
- 7-Disseminated intravascular coagulation.
- 8-Pituitary failure.
- 9-Death.
- 10-If the patient survives, infertility or sterility may result.

Treatment

Hysterectomy is the preferred treatment for most cases of complete uterine rupture. Either total hysterectomy or the subtotal operation can be employed depending on the site of rupture and the patient's condition.

If childbearing is important, rupture repair can be tried. Many ruptures can be repaired.

In our case fundal repair was done because the patient has no living children as she lost her two babies during the first accident.

Prognosis

The maternal mortality rate ranges from 10% to 40%⁽²⁾.

The perinatal mortality rate exceeds 50%.

Recurrence

-Lower section rupture 6.4% recurrence.

-Upper section rupture 32% recurrence.

So sterilization may be appropriate, but in our case, we did not do sterilization because the patient was young and has no living children.

Conclusion

Rupture of the pregnant uterus is potential obstetrics catastrophe and a major cause of maternal death. So most of the causes of uterus rupture can be avoided by good obstetric assessment and technique.

Recommendation

- 1- Timely diagnosis and management of dystocia is necessary.
- 2- Optimize uterine contractions, avoid hyper stimulation.
- 3- The cervix must not be forcibly dilated and forceps must not be applied unless it is fully dilated.

4- Whenever an operative delivery is performed (especially if the past history includes events or problem that increase the likelihood of the uterine rupture), the initial examination of the uterus and birth canal must be diligent. ⁽²⁾.

5- Whenever a newly delivered patient exhibits persistent bleeding or shock, the uterus must be carefully reexamined for signs of uterine rupture.

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الخلاصة

سيدة شابة وام لطفلة واحدة وحامل في الاسبوع الاخيرة من الحمل الثاني ، تعرضت هذه السيدة الى طلق نارى عرضي قتل ابناتها وسبب تمزق في الرحم تمت خياطته خلال عملية استكشاف البطن بعد استخراج طفلة ميتة . بعد مرور عام عانت هذه السيدة من اسقاطين منسيين ثم عقم ثانوي ، ولكن عولجت بعدها بواسطة العقاقير المنشطة

والتي كللت بحدوث حمل (توأم) وفي ليلة اجراء العملية القيصرية المقررة حصلت عندها اوجاع مفاجئة ادت الى تمزق الرحم في منطقة الطلق الناري السابق ، وبجهود حثيثة تم اجراء عملية مستعجلة وانقذت حياتها وحياة طفلها . وبعد مرور عامين حصل الحمل الخامس والذي انتهى بأجراء عملية قيصرية فرزقها الله بطفلة اخرى ، ولندارة هذه ارتئيت تقديمها .