Fetal and maternal outcome of management of patients with placenta accreta at Ain Shams Maternity Hospital A Retrospective analysis of last five years admissions

Protocol of Thesis
Submitted for Partial Fulfillment of Master Degree in
Obstetrics & Gynecology

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Introduction

Placenta accreta is an abnormal adherence of the placenta to the uterine wall. The basic histopathological disorder lies on the absence of both the Decidua basalis and the Nitabuch's layer, which result in a direct attachement of the chorionic villi to the myometrium **(Irving & Hertig, 1937)**. The most severe manifestations of this process result in placenta increta, when chorionic villi invade into myometrium, and placenta percreta, when chorionic villi invade to or through the uterine serosa **(Oyelese & Smulian, 2006)**.

The incidence of placenta accreta has been steadily increasing, mirroring increased rates of caesarean section delivery, The incidence varies with a range of 1:533 - 1:2500 **(Miller et al., 1997; ACOG, 2002)**.

In the event of placenta accreta, The third stage of labour may be complicated by severe uterine hemorrhage that may lead to the need of extensive life-saving surgical interventions such as Hysterectomy and Ligation of major pelvic vessels. As a consequence of placental invasion to adjacent organs, reconstruction of the urinary bladder or bowel may be necessary. Massive blood and blood products transfusions are the rule in these dramatic cases, and maternal morbidity is

high. Other complications include Neonatal death, Infection, Fistula formation & Ureteral damage. A maternal mortality rate of 7% has been quoted previously for this condition **(O'Brien et al.,1996)**.

The major risk factor is placenta previa with a previous cesarean section delivery but other predisposing factors have been identified including: Scarred uterus, Multiparity, Previous uterine surgery, Advanced maternal age, Previous uterine curettage **(Jacques et al., 1996; Miller et al., 1997)**. Furthermore, Female fetus gender was also reported more frequently than males in association with placenta accreta **(Khong et al., 1991; James, 1995)**.

Placenta accreta is diagnosed ideally in the antenatal period by Either Sonographic or Magnetic resonance imaging techniques. Several studies have demonstrated the usefulness of Ultrasonography in making this diagnosis, particularly at > 20 weeks' gestation **(Comstock, 2005; Lam et al., 2002)**. Unfortunately, some cases of placenta accreta are diagnosed at the time of delivery when the mother experiences continued vaginal bleeding, or heavy vaginal bleeding when an attempt is made to remove the placenta or only part of the placenta is able to be removed.

There is debate over the ideal therapeutic approach for management of placenta accreta. The generally held opinion is that the placenta accreta should be treated by cesarean hysterectomy, without attempts at removal of the Placenta **(Oyelese & Smulian, 2006)**. Conservative management, whereby the placenta is left within the uterus, is advocated by some investigators who cite that this approach has the benefits of preservation of fertility, prevention of massive hemorrage, and protection against damage to adjacent organs **(Kayem et al., 2004)**. This conservative approach, however, is not without risks, which include significant bleeding, infection, fistula formation, and failure of placental resorption **(Kayem et al.,2004; Chiang et al.,2006)**.

Aim of the work

The purpose of the study is to determine the incidence, risk factors, and outcome of management of patients with Placenta accreta at Ain Shams Maternity Hospital during past five years.

Patients and Methods

This retrospective study will be performed at Ain Shams Maternity Hospital and will include all cases of placenta accreta that were diagnosed Between January 2007 to December 2011 and the data will be retrieved from the archival files and analyzed regarding:

- Maternal age
- Gravidy and parity
- Previous abortions (with or without curettage)
- Ectopic pregnancy
- Cesarean section
- Previous occurrence of placenta accreta
- History of smoking
- Location of the placenta according to Ultrasound examination
- Outcome of delivery
- Neonatal outcome
- Blood loss
- Blood and blood products transfusion
- Hysterectomy
- Wound sepsis
- Wound dehiscence
- Length of maternal stay in an intensive care unit
- Maternal mortality

Statistical work

Type of the study: Retrospective study

Statistical analysis:

The collected data will be revised, coded, entered to personal computer and finally analyzed using the best statistical method.

Results

The collected data will be organized, tabulated and analysed using the appropriate statistical tests.

Discussion

Discussion of the obtained results and analyzed data will be done based on current related literature.

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List of Abbreviations

αFP	: Alpha Fetoprotein
ACOG	: American College of Obstetricians and Gynecologists
APH	: Antipartum Hemorrage
BHAL	: Bilateral Hypogastric Artery Ligation
BIIAL	: Bilateral Internal Iliac Artery Ligation
BMI	: Body Mass Index
BUAL	: Bilateral Uterine Artery Ligation
CH	: Cesarean Hysterectomy
D&C	: Diltation and Curettage
FFP	: Fresh Frozen Plasma
HCG	: Human Chorionic Gonadotrophin
ICU	: Intensive Care Unit
IR	: Interventional Radiology
MOM	: Multiples Of The Median
MRI	: Magnetic Resonance Imaging
MSAFP	: Maternal Serum Alpha Fetoprotein
NICU	: Neonatal Intensive Care Unit
PA	: Placenta Accreta
PPH	: Postpartum Hemorrhage
PRBC	: Packed Red Blood Cells
UAE	: Uterine Artery Embolization

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