

Descriptive statistical study of the most important possible causes of obstetric and postpartum hemorrhage in Thi-Qar province

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Abstract— The aim of the study is to describe and analyze the most important causes that lead to postpartum hemorrhage. This research was carried out at The Bent al-Huda Hospital for Maternity and Children's Hospital in Nasiriyah, where the study included (63) cases of women with postpartum hemorrhage from the reviews of the hospital for the period from February 2020 to December 2020 as shown in the hospital records, and collected information for the study through a simple questionnaire, including information: age of women, place of residence, place of birth, type of birth and causes of hemorrhage. Age groups between (40-44) accounted for (22%), (35-39), which are the highest age groups at risk of postpartum hemorrhage. The most frequent deliveries take place in the hospital, because natural or cesarean deliveries increase in this percentage. The results of the current study also show that there is no difference between natural childbirth and caesarean section with the occurrence of postpartum hemorrhage, that the condition of non-constriction of the uterus (inertia of uterus) constitutes (30%) and is considered the highest percentage among the causes of hemorrhage after birth, and then the causes such as the remnants of part of the placenta and the frequency of caesarean section by (16%), the use of accelerated medicines for childbirth and by percentage (14%) while the other causes came in low rates of cases postpartum hemorrhage.

Keywords—component, formatting, style, styling, insert .

I. INTRODUCTION

Obstetrical hemorrhage refers to any severe bleeding during pregnancy or after childbirth. The cause of bleeding is usually pregnancy-related, but some types of bleeding may be from other causes [Hasan, R.; Baird, D 2009].

Obstetric hemorrhage is one of the largest causes of maternal death.

1- Bleeding during pregnancy

It is divided into two types:

A- Early bleeding during pregnancy is the occurrence of bleeding - heavy or simple - before 20 weeks of gestational age [Carol J. Buck, 2013].

This type of bleeding is relatively common, occurring in about 25% of women, and this includes several causes:

1- Spontaneous abortion: A Western study prevention and management of management of retained placenta at 2007 showed that the risk of spontaneous abortion during pregnancy during the first trimester reaches 9% and then rises to 12% during bleeding at the beginning of pregnancy, not only that. In the case of severe bleeding, the risk of spontaneous abortion doubles and reaches 24%.

[Anderson JM, Etches D (2007)].

2- Gestational trophoblastic disease

3- Ectopic pregnancy, which means a pregnancy outside the uterus, specifically in the fallopian tubes; It is estimated that about 6% of pregnancies are ectopic, which means that internal bleeding may be fatal if it is not treated. [Soltani, H; 2011].

4- Molar pregnancy

5- Hemochoriosis

6- Causes related to the genitourinary system

7- Bleeding at the level of the cervix [Kirk, E.; Bottomley et al 2014].

Other causes of early bleeding during pregnancy are as follows:

Medical treatment may cause bleeding and the use of other substances such as sexual stimulants, anticoagulants or birth control pills may play a role in this case [Laifer-Narin, S et al 2014], as well as infection during pregnancy.

B-Prenatal bleeding that occurs during pregnancy starting from the 24th week, while other sources mention that this bleeding may occur starting from the 20th week. As for the reason, that goes back to [Hofmeyr, GJ;, Mousa, HA; Blum 2014].

1- Decreased placenta prevail or fluctuations near the internal cervical orifice. This bleeding occurs in

approximately 4 women out of 1000, and this bleeding usually requires a solution before delivery, especially in the case of a cesarean section. [Soyama, H., 2016].

2- Premature detachment of the placenta can also lead to hemorrhage.

3- The woman may be affected by this type of bleeding in the event of a trauma such as a car accident or a fall, which leads to rupture of the uterus causing severe bleeding, and this situation is considered dangerous as it may lead to internal or external bleeding [Nardin, JM; et al 2014].

2- Postpartum hemorrhage

The bleeding after childbirth is normal and most doctors recommend not to try to stop it because it is a healthy system for the body that cleans the uterus from the remnants of pregnancy and rehabilitates it in a healthy manner, but in the event of bleeding, it is a satisfactory condition and must be dealt with quickly.

In the developing world, about 1.2% of births are associated with PPH, and about 3% of women die when the hemorrhage occurs [Weeks, A (January 2015).

Postpartum hemorrhage is defined as a loss of more than 500ml of blood after a normal delivery or 1,000ml of blood after a cesarean delivery.

Postpartum hemorrhage is considered "uncontrolled" bleeding and is divided into two types, where the primary bleeding occurs in the first 24 hours after birth, while the second secondary bleeding occurs between 24 hours and six weeks [Dolea, C., Abouzahr, 2003].

The difference remains only in the amount of blood lost after childbirth. This bleeding is accompanied by instability of blood circulation, in addition to a decrease in hemoglobin to more than 10%, [Atukunda, E. C., et al 2016] and some

have added the condition that there are other signs or symptoms accompanying a decrease in blood volume to confirm the bleeding after childbirth [6].

initially, signs and symptoms may include: increased heart rate, orthostatic hypotension, and increased breathing rate. As more blood is lost, women may feel cold, blood pressure may drop, and they may become restless or unconscious, and blood transfusions are required in some cases.

Causes of bleeding after childbirth:

- A. Inertia of the uterus (uterine atony): it does not contract, so its muscles remain soft and do not press on the blood vessels to block them and hemostasis occurs. Inactivity is treated by administering hormonal or chemical uterine inhibitors after making sure that it is empty and that there are no placental remnants in it.
- B. Uterine rupture: It occurs during difficult labor or during obstetric interventions, and is indicated by except for bleeding: severe pain and the uterus has stopped contracting. It includes only the endometrium or the lining and muscle, and the fetus remains inside the uterus. The diagnosis is easy clinically, and the treatment is by opening the abdomen and

extracting the fetus and its appendages, then suturing the uterus, if possible, or excised in large lacerations [Lynch, Christopher B (2006)].

- C. Lacerations of the lower part of the reproductive system: such as the cervix, and most of this happens in difficult deliveries in which birth tools are applied. These cases are treated with suturing the lacerations wherever there are fine sutures [Carol J. Buck, 2013].
- D. Retained placenta (placenta accrete), if the placenta is not expelled from the uterus within a period not exceeding 30 minutes after birth, huge bleeding may occur, so the doctor must make sure and examine the placenta well to ensure that it is completely out.
- E. Inversion of the uterus: so that the uterus becomes turned outward after the birth of the child and the removal of the placenta, and this case occurs by one case in every 2,000 births, and this causes an increase in bleeding in excess of normal, and such cases occur when there is an abnormal adhesion of the placenta, and treatment This case is not difficult, as the doctor pushes the uterus back to take its proper position through the cervix .
- F. Bleeding occurs as a result of physiological disorders of maternal blood, as in blood diseases such as hemophilia, there is a risk that may cause death during this bleeding due to what may be caused by postpartum hemorrhage with a lack of platelets, which in the event that it drops to less than 100,000 per microliter, the mother will enter a stage It is dangerous and may have a clot during or after childbirth [World Health Organization, 2012]. It is worth saying that congenital hemorrhage, regardless of its cause, may be very profuse and threatens the patient's life. Therefore, attention must be paid to this matter and the bleeding blood should be replaced by transfusion. The patient must be monitored for a sufficient period of time to ensure that the bleeding has stopped and all organs of the reproductive system return to normal. Sometimes the necessary antibiotics must be given to prevent the occurrence of maternal infections, especially after obstetric interventions.

Postpartum hemorrhage may be dangerous if it is accompanied by one of the following symptoms: severe pallor in the face, noticeable coldness in the hands and feet, rapid heart rate, feeling nausea, vomiting and dizziness, the doctor should be consulted immediately to find out the cause of the bleeding and treat it before the condition worsens

[World Health Organization. 2012.]

II. THE RESEARCH AIMS:

At a descriptive study of the case of possible causes of postpartum obstetric hemorrhage and diagnosis and the most likely causes of postpartum hemorrhage in Dhi Qar Governorate.

III. PATIENTS AND WAYS OF WORKING:

This study was conducted in Bint Al-Huda Hospital for Maternity and Children in Nasiriyah city, based on the hospital statistics, where the number of cases of postpartum hemorrhage from hospital visits reached 63 cases for the period from February 2020 to December 2020 as shown in the hospital records, and private information was collected. By studying through a simple questionnaire form about direct contact with the patient or by looking at the hospital records, where the information included: age, residence, place of birth, type of delivery and causes of bleeding. The statistics were arranged in the form of tables, and then statistical analysis was performed using.

IV. RESULTS AND DISCUSSION:

Through Table No 1 , the current study showed that the incidence of postpartum hemorrhage was the highest in the age group (35-39), and it was (30%), and then the age group (40-44) with (22%), followed by the age group (45-49) and at a rate of (18%), since there are reasons related to the age of the mother. Late childbearing threatens the life of the mother, even if a woman can have children after one or two years after forty, but the best age for pregnancy is from 20 to 35 years, because the risk increases Complications of pregnancy with an increase Maternal age, which includes risks associated with childbearing such as increased incidence of gestational diabetes, high blood pressure, caesarean section, miscarriage, pre- Eclampsia, and placenta previa (placenta previa)

[Bowman, M. C.,2007]. The uterus is weak in old mice, it is also less sensitive to oxytocin, and the number of mitochondria decreases, all of which indicates that the uterine muscles are less able to contract properly [Abedi, P; Jahanfar et al 2016].

TABLE 1: The age group and its relationship with cases of postpartum hemorrhage.

Age	Number	Percentage
15-19	2	3%
20-24	4	6%
25-29	4	6%
30-34	9	15%
35-39	19	30%
40-44	14	22%
45-49	11	18%
Total	63	100%

The results of the current study showed through Table 2 the effect of the place of residence with the postpartum hemorrhage cases for women where the highest percentages of these cases were in the districts and sub-districts compared to the city at a rate of (54%), and this may be due to the high incidence of births in the

authorized midwife. Because of the absence or remoteness of specialized hospitals for childbirth, or the lack of knowledge of the risks that may accompany childbirth at the authorized midwife, which increases the cases of postpartum hemorrhage, and therefore it is necessary to transfer it to the nearest hospital for the necessary procedure.

TABLE 2 : Place of residence and its relationship with cases of postpartum hemorrhage.

Address	Number	Percentage
Nasiriya city center	29	46%
Districts and sub-districts	34	54%
Total	63	100%

Table No 3 shows that the number of cases of postpartum hemorrhage for women is slightly more in the case of childbirth that takes place in the hospital, whether it was natural or caesarean section than in the case of childbirth by the authorized midwife, but the percentage of postpartum hemorrhage cases in the case of childbirth with the authorized midwife is considered a percentage High and predictable danger can be stopped to avoid this situation.

Most cases of birth, whether natural or Caesarean section, in the city center or districts and sub-districts refer to hospitals to obtain health services, and thus hemorrhagic cases may occur after childbirth, as it may be caused by a strong industrial labor procedure (early labor), which leads to the explosion of the uterus and the occurrence of bleeding, or similarly Repeated caesarean section 3 or more times leads to the occurrence of bleeding cases, and all of these are calculated on the cases referred to the hospital and thus increase this percentage and this is reflected on the hospital.

TABLE 3: Place of birth and its relationship with cases of postpartum hemorrhage.

Place of birth	Number	Percentage
Hospital	35	56%
Midwife	28	44%
Total	63	100%

Through Table No.4, the results of the current study showed that there is Caesarean births in the case of natural delivery and caesarean section, as it is possible for hemorrhage to occur in both cases of childbirth. However, some sources show that the incidence of postpartum hemorrhage increases with cesarean section [Weeks, A (January 2015).].

TABLE 4: Type of childbirth .

Birth type	Number	Percentage
Normal births	31	49%
Caesarean births	32	51%
Total	63	%100

TABLE 5 : Causes of postpartum hemorrhage.

Causes of obstetric hemorrhage	Number	Percentage
Uterine atony	19	30%
Remnants of part of the placenta	10	16%
Uterine inversion	2	3%
Use of premature labor (artificial labor)	9	14%
Blood diseases and anemia condition	5	8%
Repeat caesarean section	10	16%
Twin birth	6	10%
Obesity	2	3%
Total	63	100%

Table No.5 shows the most important causes that lead to postpartum hemorrhage that were conformed at patients chart by specialist physician , and it was found that the case of uterine atony (atony) (30%) is the highest among the causes of postpartum hemorrhage, and this is consistent with some sources and research that confirm The most common cause of bleeding is weak uterine contraction after childbirth because it does not contract, so the uterine muscles remain soft and do not compress the blood vessels to block them, and hemostasis occurs [Anderson JM, Etches D (2007).

On other hand some medications to stimulate the uterus to contract after the birth of the child, as oxytocin given intravenously is the preferred drug for postpartum hemorrhage, and represents the first line of treatment for postpartum hemorrhage when it is caused by the failure of the uterus to contract well [Weeks, A (January 2015). The nipple and breastfeeding lead to the release of natural oxytocin in the body, and therefore it is believed that encouraging the baby to breastfeed immediately after birth may reduce the risk of postpartum hemorrhage for the mother . [Abedi, P; Jahanfar et al 2016].

Through the same table, it is clear that among the reasons that lead to postpartum hemorrhage is the survival of part of the placenta and the case of repeated caesarean section (16%), as not removing all the placenta from inside the uterus within a period not exceeding 30 minutes after birth, which It is considered one of the reasons for the weak contraction of the uterus and its return to its normal position, which causes bleeding [- Weeks,A (January 2015).]. As well as repeating the caesarean section 3 or more times, as pressure is applied to the same wound site more than once, and this area becomes very stressful and weak, and the artery leading to the uterus is injured, which leads to bleeding.

The same table also shows the use of premature labor drugs (artificial labor) at a rate of (14%) and then the birth of twins at a rate of (10%) blood diseases and anemia condition by (8%). Bleeding occurs when there is a failure

in clotting, such as diseases known as morbidity thrombosis, as well as the general poor health of a pregnant woman who may be afflicted with diseases she does not know that may lead to bleeding and then death during childbirth, as if the woman is suffering from Mediterranean anemia (thalassemia disease) that leads to poor production of platelets in the body, or her injury A disease of coagulation or fluidity in the blood, as well as the mother's anemia (anemia) or low iron in the blood are all causes of postpartum hemorrhage [Laifer-Narin, S. L., 199].

Uterine inversion and obesity also constitute (3%) of the causes that lead to postpartum hemorrhage, meaning that the uterus has inversion, so that the uterus becomes inverted outward after the birth of the child when the placenta is removed, and that this case occurs by one case in every 2000 births When there is an abnormal adhesion of the placenta to the uterine wall, this causes an increase in bleeding than normal, and the treatment of this condition is not difficult, as the doctor pushes the uterus back to take its proper position through the cervix [Lynch, Christopher B 2006].

Conclusions:

The majority of study sample age group within 39-35 years accounted for 30%. Child birth majority takes place in the hospital. Current study showed that there is Caesarean section is the most type of child birth. Uterine atony (atony) reflected the most common cause of postpartum hemorrhage.

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