

## Relationship between Third Trimester Vaginal Bleeding Medical Causes and pregnancy Outcomes of Pregnant Women Attending Bint Al-Huda Hospital in Al-Nasiriya City

العلاقة بين الاسباب الطبيه للنزف المهبلي خلال الفصل الثالث من الحمل ونتاج الحمل للنساء المراجعات مستشفى بنت الهدى في مدينة الناصرية

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### المستخلص

**الهدف:** لمعرفة العلاقة بين النزيف المهبلي أثناء الفصل الثالث من الحمل ونتاج الحمل.

**المنهجية:** اجريت دراسته وصفية تحليلية لاختيار عينه عمديه لمئة امراه (100) مشخصه باصابتهم بنزيف مهبلي خلال الأشهر الثلاثة (27-40 اسبوع) من الحمل واللواتي يرقدن في مستشفى بنت الهدى في مدينة الناصرية للفترة من 15 شباط - 17 أيار عام 2015. وتم تحديد من خلال الخبراء والثبات من خلال الدراسة الاستطلاعيه واستخدمت الأساليب الإحصائية الوصفية والاستدلاليه لتحليل البيانات وتم جمع العينه باستخدام المقابلة، وتم تصميم الاستبيان من ثلاثة أجزاء: معلومات ديموغرافية ومعلومات الإنجابية وأسئلة ذات صلة بالنزف المهبلي الحالي و الأسباب الطبيه، ونتاج الحمل.

**النتائج:** أظهرت نتائج الدراسة أن أعلى نسبة من عينة الدراسة كانت ضمن الفئة العمرية (20- 24) سنة. وذوات مستوى تعليمي واقتصادي عالي وان أكثر من نصف عينة الدراسة كن ربات البيوت. ومقيمات فيمناطق حضرية. وفيما يتعلق بالمعلومات الانجابيه فان اعلى نسبة من عينه الدراسه كن حوامل لحمس مرات وولدن خمس مرات فاكثر ولديه ن على الاقل اربعة اطفال احياء وكانت فترة الحمل بالاسبوع (28-29) أسبوع و(30-31) أسبوع، على التوالي و الفترة الفاصلة بين الحمل الماضي والحالي سنة واحدة إلى سنتين وان سبب النزف من الناحية الطبيه هو تمزيق الرحم وعزوا اسباب النزف من وجهة نظرهن للح وادث. وتبين الدراسه ان أثر النزف على الوليد ولادة طفل خديج وان هنالك علاقه ذات دلالة احصائيه موجبه بين اسباب النزيف المهبلي خلال الثلث الاخير من الحمل ونتاج الحمل.

**التوصيات:** زيادة الوعي عند النساء الحوامل حول مضاعفات الحمل وخاصة النزف أثناء الحمل عن طريق وسائل الإعلام، والاهتمام أكثر بالأمهات والتركيز على الحضور الى المركز الرعاية الصحية الأولية للحصول على الرعاية ما قبل الولادة إلى التشخيص المبكر وعلاج بعض المضاعفات المحتملة أثناء الحمل، وتقليل عدد مرات الحمل خصوصاً مع المخاطر العالية للمرأة من خلال تنظيم الأسرة و يمكن خفض معدلات المرضى والوفيات ماحول الولادة عن طريق توفير مراكز الرعاية لحديثي الولادة وتوفير كافة المستلزمات فيها.

**Objective:** To find out the relationship between vaginal bleeding during third trimester and pregnancy outcomes.

**Methodology:** A purposive sample is "Non-probability" of (100) women who had diagnostic vaginal bleeding during third trimester (27-40wk) of pregnancy, and who visited the Bint Al-Huda Hospital for the period from 15th Feb. to 17th May 2015. Validity and reliability of questionnaire are determined through pilot study. Descriptive and inferential statistical procedures were used to analyze the data, and the data were collected by using interview technique, constructed questionnaire has been designed in three parts: socio demographic, reproductive data and questions related to current vaginal bleeding and medical Causes, and pregnancy Outcomes.

**Results:** Results of the study showed that the highest percentage of the study sample were within the age group (20-24 years). And women with high educational and economic level and more than half of the study sample were housewives, and residents in urban areas. With regard to the information reproductive the highest percentage of the study sample had been pregnant for five times and had given birth five times and more and have at least four living children were pregnancy in weeks period (28-29) a week and (30-31) a week, respectively, and the interval between the last pregnancy and current one year to two years. And that the cause of bleeding from a medical point is the rupture of the uterus and attributed the causes of bleeding from their medical point of view were accidents. The study shows that the impact on the newborn was premature birth of a child and that there is a significance relationship between the medical causes of 3<sup>rd</sup> trimester vaginal bleeding and pregnancy outcomes.

**Recommendations:** Increases pregnant women awareness about pregnancy complications especially bleeding during pregnancy through mass media, pay more maternal attention and Emphasize the importance of attending the primary health care center for antenatal care to early diagnosis and treatment of some possible complications during pregnancy, reduce the number of pregnancy especially for those with high risk through family planning and Reduce the perinatal morbidity and mortality through good neonatal intensive care facilities.

**Keywords:** Medical Causes, Pregnancy Outcomes, Pregnant Women, Relationship, Third Trimester Vaginal Bleeding

## Introduction

Pregnancy is a normal process that leads to a range of physiological and psychological changes in expectant mothers. But, it may be accompanied by some of the normal pregnancy complications and problems that might threaten the mother's life and / or the fetus<sup>(1,2)</sup>.

Vaginal bleeding is a common condition during pregnancy, it can occur at any time during pregnancy with many causes although half of cases have unknown reasons and possible outcomes, ranging from the benign to the disaster. Almost 1 out of every 4 cases of early pregnancies ends in abortion<sup>(3, 4, 1, 2, 5)</sup>, and during the late pregnancy, the percentage of abortion ranges from 2 to 5% of all pregnancies<sup>(6,7)</sup>.

Bleeding during 3rd trimester of pregnancy is defined as hemorrhage from the genital tract after 20 weeks of gestation, but before the delivery of the baby. It complicates about 2-5% of all the pregnancies. Bleeding during 3rd trimester of pregnancy can be due to placenta Previa, abruption placentae, indeterminate cause or local causes of genital tract. It is a grave obstetrical emergency, and is a leading cause of maternal and perinatal mortality and morbidity<sup>(8,9)</sup>.

Vaginal bleeding appears as a major cause of severe maternal morbidity in almost all revisions "near miss" in both developed and developing countries<sup>(10)</sup>, it hold up to a quarter of all pregnancies<sup>(11)</sup>.

Maternal mortality due to bleeding during 3rd trimester of

pregnancy has significantly decreased in developed countries due to better obstetrical outcome. In India, maternal and perinatal mortality is still very high due to associated problems like anemia, difficulties in transport in case of emergency and restricted medical facilities<sup>(12,13)</sup>.

Vaginal bleeding is a common complication for all stages of pregnancy and is often considered a sign of a problem in pregnancy. Bleeding was associated with premature birth, low birth weight, and small for gestational age infants<sup>(14)</sup>. If repeated, it becomes is a risk for adverse pregnancy outcomes factors. Some of the negative consequences include high mortality rate and perinatal disorders, amniotic fluid, and prom and PPRM (Preterm premature rupture of membranes), recurrent miscarriage, premature birth, low birth weight, and low Apgar score<sup>(15,16)</sup>.

The maternal complications of bleeding during the third trimester of pregnancy are mal presentation, premature labor, postpartum hemorrhage, sepsis, shock and retained placenta. Various fetal complications are premature baby, low birth weight, intrauterine death, congenital malformation and birth asphyxia<sup>(17)</sup>.

Vaginal bleeding is controlled by early diagnosis and careful management. This includes early prenatal care identification of women at risk for complication of vaginal bleeding. Recognition and reporting of physical warning signs are essential components in the optimization of maternal, fetal and perinatal outcomes<sup>(18)</sup>.

**Methodology:**

A descriptive analytic study is conducted to study the relationship between Vaginal Bleeding and Pregnancy Outcomes of Pregnant Women Attending Bint Al-Huda Hospital in Al-Nasiriya City

The present study is conducted in Thi-Qar Governorate; Bint Al-Huda Teaching Hospital in four departments which includes: maternal words, emergency words, neonate words and labor room during morning, evening and night shift.

A purposive "Non-probability" sample of (100) woman. These women, who diagnosed with vaginal bleeding during 3<sup>rd</sup> trimester (27-40wks) of pregnancy, were distributed in different unit of Bint AL Huda hospital units:

- a- Pregnant women during prenatal period for treatment and monitoring baby (prenatal care).
- b- Delivered woman who receiving care both for mother and her baby (postnatal care).

The study instrument from consisted of three parts:

**Part I: Socio demographic Information**

Which include the following variables (age, Pregnant Education level, Employment, Residency and Socioeconomic status from family point of view)

**Part II: Reproductive characteristics.**

Which are related to (Current pregnancy duration (weeks), Interval between last pregnancy and current pregnancy (months), Gravidity, Parity, and Number of abortion).

**Part III: Questions Related to current Vaginal Bleeding and medical Causes, and pregnancy Outcomes:**

- 1-Medical diagnosis of current vaginal bleeding
- 2- Causes of vaginal bleeding from study sample point of view
- 3-The impact of vaginal bleeding on the newborn in current pregnancy (9 items) for current pregnancy

The data were obtained through a direct interview with each woman in the study sample from 15th Feb. to 17th May 2015. The investigator introduces plan and explains the study objectives and the important of the study. Verbal consent from each woman of the study samples obtained, and the participation was confidential and voluntary, the information was for research purposes only (as ethical requirement). The approximate time for interviewing each woman was (15-20) minutes to complete the questionnaire format.

The internal consistency reliability is determined through computing Cronbach's alpha, which is equal to (0.57), and is considered positive and significant and the validity determined through a panel of (16) experts in the field.

**Statistical analysis**Descriptive Data Analysis:

- Frequencies and Percentages
- Standard Deviation and Mean
- Graphical presentation by using: (Bar – Chart, Pie – Chart)
- Rating and Scoring of the Questionnaire

Inferential Data Analysis:

- Cronbach's Alpha
- Chi-Square
- The P. value indicates that the degree of significance was ( $P \leq 0.05$ ) to just significant result
- Pearson Correlation Coefficient

**Results:****Table (1): Distribution of Study Sample According to General Information (n=100)**

Variables	F	%
<b>Age/ years</b>		
<20	16	16%
20 – 24	24	<b>24%</b>
25 – 29	21	21%
30 – 34	22	22%
=>35	17	17%
<b>Mean and Stander Deviation = 27.1±7.74</b>		
<b>Pregnant Women Educational level</b>		
Illiterate	13	13%
Read & Write	12	12%
Primary	21	21%
Intermediate	21	21%
Secondary	10	10%
College & Higher	23	<b>23%</b>
<b>Pregnant Women Occupation</b>		
Govern. employee	26	26%
Housewife	68	<b>68%</b>
Student	6	6%
<b>Residency</b>		
Urban	55	<b>55%</b>
Rural	45	45%
<b>Socioeconomic Status from family point of view</b>		
Sufficient Income	43	<b>43%</b>
Barely sufficient Income	31	31%
Not sufficient Income	26	26%

**n: Sample Size, F: Frequency, %: Percentage, <: less than, =>: equal and more**

Table (1) shows the highest percentage (24%) of the study sample is within age group (20- 24) years, with mean and SD (27.1±7.74), while the lowest percentages (16%) is less than 20 years.

Concerning the pregnant women educational level, the highest percentage (23%) of the study sample were graduated from college or had higher study degree, and the lower percentage (10%) of them were graduated from secondary school.

Regarding the pregnant women occupation the highest percentage (68%) of the study sample are housewives, while the lowest percentage (6%) of them are students.

Concerning the residency the highest percentages (55%) of the study sample live in urban area, while (45%) of them live in rural area.

Regarding the socioeconomic status the highest percentage (43%) of the study sample have sufficient income, and (31%) of them barely sufficient income, while (26%) of the study sample have insufficient income.

**Table (2): Distribution of Study Sample According to Reproductive Characteristics (n=100)**

Variables	F	%
<b>Current pregnancy duration (weeks)</b>		
28---29	28	<b>28%</b>
30---31	28	<b>28%</b>
32---33	26	26%
=>34	18	18%
<b>Interval between last pregnancy and current pregnancy(months)</b>		
<12	30	30%
12---	45	45%
24---	16	16%
=>36	9	9%
<b>Gravidity</b>		
1	20	20%
2	13	13%
3	19	19%
4	8	8%
=>5	40	<b>40%</b>
<b>Parity</b>		
1	23	23%
2	16	16%
3	20	20%
4	9	9%
=>5	32	<b>32%</b>
<b>Number of Abortion</b>		
No	68	<b>68%</b>
One	19	19%
Two	9	9%
Three and more	4	4%

**n: Sample Size, F: Frequency, %: Percentage, <: less than, =>: equal and more,**

Table (2) shows that the highest percentage (28%) of the study sample of the current pregnancy duration were (28-29) and (30-31) weeks, respectively, while the 18% lowest percentage of them were, (= >34) weeks.

Regarding the interval between last pregnancy and current pregnancy the highest percentage (45%) of the study sample have interval period between last and current pregnancy for one year to two years, while the lowest percentage (9%) of them have (= >36) month.

Regarding the gravidity the highest percentages (40%) of the study sample have gravid (= >5), while the lowest percentages (8%) of them have gravid, (4).

Concerning the Parity the highest percentage (32%) of the study sample were para (= >5), while the lowest percentages (9%) of them were para (4).

Regarding the number of Abortion, the highest percentage (68%) of the study sample has no history of previous abortion, while the lowest percentage (4%) of them has three and more time abortion.

**Table (3): Distribution of Study Sample According to Characteristics of the current pregnancy (n=100)**

Characteristics of the current pregnancy	F	%
<b>Medical diagnosis of current vaginal bleeding</b>		
Placenta Previa	24	24%
Placenta abruption	24	24%
Vasa Previa	10	10%
Uterine rupture	25	<b>25%</b>
Preterm delivery	17	17%
<b>Causes of vaginal bleeding from study sample point of view</b>		
Accident	71	<b>71%</b>
Uterine malformation	10	10%
Uterine infection	19	19%

n: Sample Size, F: Frequency, %: Percentage

Table (3) shows that the highest percentage (25%) of the study sample had vaginal bleeding due to uterine rupture, while the lowest percentage (10%) of them were due to vasa Previa.

Concerning the causes of vaginal bleeding from the study sample point of view the highest percentage (71%) of the study sample consider accident (e.g. lifting heavy objects, exposure to car accident, hyperactivity, fall from a high place, walking for a long time, intercourse, using drug e.g. paracetmole or cough syrup) are behind vaginal bleeding, while the lowest percentage (10%) of them relate the causes to uterine malformation, as they mention.

**Table (4): Distribution of (100) Study Sample According to Impact of Vaginal Bleeding on the Newborn of the Current Pregnancy (n=100)**

*The impact of vaginal bleeding on the newborn	F	%
Congenital anomalies of the fetus.	19	6%
Intrauterine fetus death	14	4%
Still birth	20	7%
Premature baby	86	<b>29%</b>
The neonate admitted to the neonatal intensive care unit (NICU)	31	10%
Respiratory Distress Syndrome (RDS)	32	11%
Aneamia	14	5%
Low birth weight	66	22%
Jaundice	18	6%

n: Sample Size, F: Frequency, %: Percentage

Table (4) shows that the highest percentage (29 %) of the study sample, the impact of vaginal bleeding on the newborn is premature birth, while the lowest percentage (4%) of them has intrauterine fetus death.

**Table (5): Distribution of (100) Study Sample According to the association between vaginal bleeding during third trimester and pregnancy outcomes**

Medical causes of vaginal bleeding pregnancy outcome	Total impact of vaginal bleeding on newborn		
	$\chi^2$	Df.	P.V.
Placenta Previa Placenta abruption Vasa Previa Uterine rupture Preterm delivery	27.720	4	<b>0.000</b> HS. Sig.

$\chi^2$ = chi-square, Df. = degree of freedom, P.V. = probability value, HS=highly significant

Table (7) shows reveals that there is a significant relationship between medical causes of vaginal bleeding during 3rd trimester and pregnancy outcomes

### Discussion:

The study indicate that the highest percentage (24%) of the study sample are within age group (20- 24) years with mean and SD ( $27.1 \pm 7.74$ ) as shown in table (1), this result disagrees with reports shows that the maternal age over 30 years, has a nearly two-fold increased risk of the vaginal bleeding during the 3<sup>rd</sup> trimester of pregnancy in subsequent pregnancies<sup>(19)</sup>. The effect of maternal age on the risk of the vaginal bleeding during the 3<sup>rd</sup> trimester of pregnancy probably related to the aging of the uterus, placenta affecting appropriate in the subsequent pregnancy<sup>(20)</sup>. According to study result shows that, the maternal age above 40 years factor to be independently correlated with the occurrence of vaginal bleeding during the 3<sup>rd</sup> trimester of the pregnancy<sup>(21)</sup>. A prospective and descriptive study concluded that incidence of third trimester bleeding was 1 in 144 deliveries, being higher with increased age<sup>(22)</sup>.

The highest percentage (23%) of the study sample was graduated from college and had postgraduate degree.

The study results reveal that the highest percentage (68%) of the study sample is housewives as show in table (1). These findings is agree with study that finds that women's work during pregnancy may have an impact on their health and on the validity of the fetus, especially the risk of low birth weight (LBW) and preterm labor<sup>(23, 24)</sup>.

More than half (55%) of the study sample are residents in urban area, while (45%) of them live in rural area as shown in table (1). This result disagree with report that stated that more than half (60.4%) of pregnant women with prenatal bleeding (placenta previa, placental

abruption, vasa Previa) live in rural areas, because the higher parity is more often encountered in the rural population. When the social and economic decline, these factors double and pose risk great in birth outcomes and the prenatal period<sup>(25)</sup>.

The study result shows that the highest percentage (43%) of the study sample have sufficient income, and (31%) of them consider their income barely sufficient, while (29%) of the study sample in sufficient income from their point of view, as shown in table (1). These findings disagree with study which concluded that (58%) of bleeding during pregnancy were from poor socio-economic class<sup>(26)</sup>.

The study result revealed that the highest percentage (28%) of the study sample their duration of current pregnancies age (28-29) weeks and (30-31) weeks, respectively as show in table (2). Prematurity of the neonate was a serious complicating factor in antepartum hemorrhage<sup>(27)</sup>.

The study result shows that the highest percentage (45%) of the study sample interval between last and current pregnancy is between one to two years, as shown in table (2). WHO study reports that the pregnancy between long periods of time, perhaps more than five years, is associated independently with increased complications of pregnancy, such as the risk of pre-eclampsia, but short periods associated with uterine placental bleeding chaos (placenta Previa and separation). There is a relationship between short-term and other negative outcomes such as maternal anemia. It seems that a short period between pregnancies is another factor that leads to negative birth<sup>(28)</sup>.

It has been found significant impacts of short inter-pregnancy intervals for extreme

preterm birth, moderate preterm birth, low birth weight, stillbirth and early neonatal death outcomes largely in high- and moderate-income countries. It is likely these effects would be greater in settings with poorer maternal health and nutrition<sup>(29)</sup>.

The study finds that the highest percentage (40%) of the study sample have ( $\geq 5$ ) pregnancies as shown in table (2), this result agrees with a study which finds that vaginal bleeding during pregnancy frequently occur in some women than other women, who have had five pregnancies and more<sup>(30)</sup>, placenta previa has more in the second pregnancy or more pregnancies<sup>(31, 32)</sup>.

More than one third (32%) of the study sample have five or more child, as shown in table (2).<sup>(33)</sup> reported that women with parity greater than four and nearly nine times have more chance of vaginal bleeding during 3<sup>rd</sup> trimester of pregnancy than those with of less parity. The Incidence of third trimester bleeding was 1 in 144 deliveries, being higher with increased age and parity<sup>(34)</sup>.

The highest percentages (68%) of the study sample have no history of previous abortion, as shown in table (2). It is estimated that each year, worldwide 40- 70 per 1000 women of reproductive age have an abortion and that between one- fifth and one – third of all pregnancies are terminated<sup>(35)</sup>.

Table (3) shows that the highest percentage (25%) of the study sample have vaginal bleeding due to uterine rupture, and the highest percentage (71%) of the study sample consider accidents (e.g. Lifting heavy objects, Exposure to car accident, Hyperactivity, fall from a high place, walking for a long time, intercourse, using drug e.g. paracetamol or cough syrup) are

behind their vaginal bleeding. In 100 cases that were included in the descriptive study, the results show that on maternal and fetal outcome of grand multipara, the common medical illnesses found in grand multipara were anemia (92%), hypertension (13%), preeclampsia (9%) eclampsia (4%) and diabetics mellitus (2%). Other complications observed were in grand multipara (18%), preterm labor (15%), placental abruption (8%), placenta previa (5%), obstructed labour (4%), and ruptured uterus (2%)<sup>(36)</sup>.

Table (4) Shows that the highest percentage (29%) of the study samples the impact of vaginal bleeding on the newborn are prematurity.

Bleeding of multiple episodes, on multiple days, and with more total blood loss was associated with an approximate two fold increased risk of earlier preterm birth, PPROM, and preterm labor. In contrast, bleeding in the second trimester only, of a single episode, on a single day, and with less total blood loss, was not associated with any category of preterm birth. Vaginal bleeding was not associated with preterm birth among African Americans. This study indicates that more intense but not less intense bleeding is associated with earlier preterm birth and spontaneous preterm birth presenting as PPROM or preterm labor, and it suggests that bleeding is less predictive of preterm birth among African-American compared with White women<sup>(1)</sup>.

Teenage pregnancy was found to be associated with adverse outcome such as low birth weight, preterm delivery, small for gestational age and malformations. The risk for low birth weight was affected mainly by demographic factors (maternal ethnicity, lack of prenatal care) and medical factors

(pregnancy-induced hypertension, malformations)<sup>(37)</sup>.

Abruption was the commonest cause of APH with its associated maternal morbidity and perinatal mortality and morbidity. Prematurity of the neonate was a serious complicating factor in APH. Overall incidence of APH has remained high. It still continues to constitute a major portion of obstetrical hemorrhage. Perinatal mortality with abruption remains to be high<sup>(27)</sup>.

Statistically significantly more perinatal deaths occur in women with fetomaternal hemorrhage, 35% in study subjects compared to 2.7% longest controls. In the cases of third trimester bleeding and fetomaternal hemorrhage, chances of perinatal deaths are more<sup>(38)</sup>.

Women with antepartum bleeding of unknown origin are at greater risk of preterm delivery, term labour induction and their neonates are at greater risk for neonate intensive care unit admissions, hyperbilirubinaemia and a reduced birth weight<sup>(39)</sup>.

There were a statistical significant relationship between medical causes of vaginal bleeding and impact on pregnancy outcome as shown in table (5).

Abruption placenta and placenta Previa remain important causes of perinatal mortality and maternal mortality in third trimester bleeding<sup>(34)</sup>. Findings showed that vaginal bleeding was associated with 3 times increased risk of preterm delivery, bleeding characteristics including bleeding time, frequency, severity and intensity was significantly associated with preterm labor<sup>(40)</sup>.

#### **Recommendations:**

The study recommends the following:

1-Increases pregnant women awareness about pregnancy

complications especially bleeding during pregnancy through mass media.

2-Pay more maternal attention and Emphasize the importance of attending the primary health care center for antenatal care to early diagnosis and treatment of some possible complications during pregnancy.

3-Reduce the number of pregnancy especially for those with high risk through family planning

4-Reduce the perinatal morbidity and mortality through good neonatal intensive care facilities

#### **References**

1.Yang Q, Wen SW, Oppenheimer L, Chen XK, Black D, Gao J, *et al.* Association of caesarean delivery for first birth with placenta praevia and placental abruption in second pregnancy. **BJOG** 2007; 114:609-13

2.Fraser M, Cooper A. (2003): **Myles Textbook for Midwives. !4<sup>th</sup> ed.**, Churchill Livingstone, Edinburgh

3.Snell BJ. Assessment and Management of Bleeding in the First Trimester of Pregnancy. **Journal of Midwifery & Women's Health.** 2009; 54: 483-91

4.Koifman A, Levy A, Zaulan Y, Harlev A, Mazor M, Wiznitzer A, *et al.* The clinical significance of bleeding during the second trimester of pregnancy. **Arch Gynecol Obstet.** 2008; 278:47-51

5.Gabbe, S. G., J. R. Niebyl, J. L. Simpson. **OBSTETRICS: Normal and Problem Pregnancies.** Churchill Livingstone, New York, 2002. ISBN 0-443-06572-1

6.Mukherjee S, Bhide A. **Antepartum hemorrhage. ObstetGynaecol Report Med** 2008; 18:335-9

7. Sinha P & Kuruba N. Ante-partum haemorrhage: an update. **J ObstetGynaecol.** 2008; 28(4): 377–81
8. Dutta C. Antepartum haemorrhage In Konar HL editor. **Textbook of obstetrics.** 6th ed. New Central Book Agency Kolkata 2006; 24346
9. Taylor VM, Kramer MD, Vaughan TL, Peacock S. Placenta previa and prior cesarean delivery: how strong is the association? **Obstet Gynecol.** 2011; 84(1):55–7
10. Brace V, Kernaghan D, Penney G. Learning from adverse clinical outcomes: major obstetric haemorrhage in Scotland, 2003–05. **BJOG** 2007; 114:1388–1396
11. Ananth & Savitz. "Preterm premature rupture of membranes, intrauterine infection, and oligohydramnios: risk factors for placental abruption." **obstetrics & Gynecology** 104.1 (2004): 71-77.
12. Arora R, Devi U, Majumdar R. Perinatal morbidity and mortality in antepartum hemorrhage. **J ObstetGynaec India.** 2001; 51(3):1024
13. Signore C, Sood A, Richards D. Second-trimester vaginal bleeding: correlation of ultra sonographic findings with perinatal outcome. **Am J ObstetGynecol** 2007; 178:336-9
14. Williams MA, Mittendorf R, Lieberman E, Monson RR. Adverse infant outcomes associated with first trimester vaginal bleeding. **ObstetGynecol** 2001; 78:14–8. [PubMed: 2047055]
15. Koifman A, Levy A, Zaulan Y, Harlev A, Mazor M, Wiznitzer A, et al. The clinical significance of bleeding during the second trimester of pregnancy. **Arch Gynecol Obstet.** 2008;278:47–51
16. Axelsen SM, Henriksen TB, Hedegaard M, Secher NJ. Characteristics of vaginal bleeding during pregnancy. **Eur J Obstet Gynecol Reprod Biol.** 2005; 63: 131-134
17. Neilson JP, Interventions for treating placental abruption. **Cochrane Database Syst Rev,** 2003; CD003247
18. Olds, S London, ml. ladewig, P: **maternal newborn nursing . Addison Wesley nursing,** redwood city, 2001, pp.507- 521
19. Rumine T., Rubia R., Ambreen B., Haris R., and Fahad H " the risk factor associated with placenta previa in patient presented to civil hospital Karachi – **Gynecology and Obstetrics .** Vol. 16, No. 2, 2010
20. Chi-Hang Lee and Poh, Chin-Leng, "Acute myocardial infarction and vaginal bleeding in pregnant women." **Ann Acad Med Singapore.** 39.3 (2010): 247-53
21. Sheiner E, Shoham-Vardi I, Hallak M, Hershkowitz R, Katz M, Mazor M. Placenta previa: obstetric risk factors and pregnancy outcome. **J Matern Fetal Med.** 2001; 10(6):414–9
22. Anamika, Hematha, Malik Goonewardene, S. Navaneethan, G. H. K. K. Gunawardena, K. G. W. Priyananda, G. K. C. Jayalath, D. M. P. Disanayake et al. "Sri Lanka Journal of Obstetrics and Gynaecology." **Risk management** 31, No. 1 (2014): 3-9
23. Bozkurt & Gulden. "A comparison of physical store versus online grocery shopping habits based on consumers'

- environmental characteristics."** (2010)
24. Buman L. **The Effect of Emplyment while Pregnanton health at birth** 2004; 12- 42
25. Rayamajhi, Ajit, et al. "Clinico-laboratory profile and outcome of Japanese encephalitis in Nepali children." **Annals of Tropical Paediatrics: International Child Health** 26.4 (2006): 293-301
26. Sharid S., and Moshtaq M., " complication of grand Multiparity", **Pakistan Armed Forces Medical Journal**, 2009, (4)
27. Ambarisha, and Abhishek A. Bhandiwad. **A study of maternal and fetal outcome in ante partum hemorrhage**, 108 (2014)
28. Rosas A., and Ana C. "Association between birth spacing and Risk of adverse Maternal Outcomes " **Green Carol green journal Online**. Elsevier 2009. Is available from [mhtmi:/association between birth spacing and Risk of adverse Maternal Outcomes](http://mhtmi.com/association-between-birth-spacing-and-Risk-of-adverse-Maternal-Outcomes) – Elsevier article locator. Mht
29. Wendt, Amanda, et al. "Impact of Increasing Inter-pregnancy Interval on Maternal and Infant Health." **Paediatric and perinatal epidemiology** 26.s1 (2012): 239-258
30. Pilliteri A, **Maternal and child health nursing**, "Nursing care for postpartum Haemorrhage", 1992. USA, 4<sup>th</sup>ed, Black well Inc, p; 731-733
31. Jang DG., Marty F., Carolina A., " Maternal outcome according to placenta position in placenta previa, **International journal of medicines**. vol. 8 No. 5, 2011; 439-444.
- Is Available from [www.medsci.org/vo8p439.htm](http://www.medsci.org/vo8p439.htm) Access at 9/1/2012
32. Baret J, Boehm F, and Killam A." Induce Abortion: A risk factor for placenta previa". **American J ObestatGynecol**, Vol. 141, No. 71, 2008; 33-35. Is available from <http://www.ncbi.nlm.nih.gov/pubmed/7315904.com>
33. Bahar A., Mamdoh E, adekunle SM. A "Risk factor and pregnancy outcomes in different type of placenta previa" **Journal ObestatGynecol Can (JOGC)**. vol. 13, No.2 2009; 126-130
34. Anamika, Hematha, MGoonewardene, S. Navaneethan, G. H. K. K. Gunawardena, K. G. W. Priyananda, G. K. C. Jayalath, D. M. P. Disanayake et al. "**Sri Lanka Journal of Obstetrics and Gynaecology**." Risk management 31, No. 1 (2014): 3-9
35. Royston,E and Armstrong, S. prevention maternal Deaths **WHO**, Geneva, 2000, pp. 10. 25, 45
36. Hoque, Ehsanul, and Suriya B. Kader. "Pregnancy complications of grand multi parity at a rural setting of South Africa. " **Iranian Journal of Reproductive Medicine** 6.1 (2008): 25-31
37. Gortzak-Uzan, L., et al. "Teenage pregnancy: risk factors for adverse perinatal outcome." **Journal of Maternal-Fetal and Neonatal Medicine** 10.6 (2001): 393-397
38. Shakuntala, Chhabra, et al. "Trans placental hemorrhage in women having third trimester bleeding and perinatal outcome." **Open Journal of Obstetrics and Gynecology** 1.03 (2011): 149

39. McCormack, R. A., et al. "Antepartum bleeding of unknown origin in the second half of pregnancy and pregnancy outcomes." **BJOG:An International Journal of Obstetrics & Gynecology** 115.11 (2008): 1451-1457

40. Hajar, Sharami, et al. "The relationship between vaginal bleeding in the first and second trimester of pregnancy and preterm labor." **Iranian journal of reproductive medicine** 11.5 (2013): 385