

## **Uterine rupture: Afive year review at Al-sadaqa teaching hospital, Aden**

**Huda A. Basorra, Nahla S. Al.kaaky, Entesar M. Abdulla and Fatima Sh. Aman**

Department of Gynecology & Obstetrics, Faculty of Medicine & Health Sciences, University of Aden

DOI: <https://doi.org/10.47372/uajnas.2017.n2.a17>

### **Abstract**

The aim of the study is to determine the frequency, related risk factors, management modalities and feto- maternal outcome of uterine rupture.

This is a retrospective descriptive study using data from the medical birth registration at Al-Sadaqa Teaching Hospital, Aden, during a period of five years from 1<sup>st</sup> Jan 2012 to 31<sup>st</sup> December 2016.

Out of 31905 deliveries over the study period from 1<sup>st</sup> of Jan 2012 – 31<sup>st</sup> of Dec 2016, 84 cases had uterine rupture, giving an incidence of 0.26% or 1 in 323 deliveries. Maternal age group 20 – 34 years represented (58.3%), and gestational age of 37 – 42 weeks represented (84.5%), regarding the parity (69.0%) having (1-3 children), (50.0%) were with one scar, while previous two scars and history of no scars represented by (21.4%) and (22.6%) respectively, and (6.0%) have three scars. Antenatal scar < 4 visits found in (60.7%), while (39.3%) having  $\geq 4$  visits.

Most cases of rupture uterus (81.0%) were occurred intra partum. Big baby constitutes 27.4%, mal presentation and mal position was 19.0%, short inter-pregnancy interval less than one year was 16.7%, labour induced by uterotonic agent represented by 10.7%, from them 5 cases were outside our hospital, 4 of them on scared uterus. Contracted pelvis occur in 9.5%, obstructed labour and delayed in receiving intra hospital medical care registered 6.0% for each one. Finally congenital uterine abnormalities and abdominal trauma represented the lowest percentage 1.2% for each one.

Unfortunately there were two cases died due to rupture uterus. About 66.7% delivered alive babies and 33.3% of babies were lost. Repair was done for 75.0%, subtotal hysterectomy was done for 19.0%. Repair with tubal ligation and total hysterectomy were done for 2.4% for each one.

**Keywords:** Contracted pelvis, cesarean section, hysterectomy, obstructed labor, uterine rupture and uterotonic agent.

### **Introduction**

Uterine rupture is a catastrophic obstetric complication associated with high rates of fetal and maternal morbidity and mortality.<sup>(18,20)</sup>

Rupture uterus is defined as dissolution in the continuity of the uterine wall any time beyond 28 weeks of pregnancy. It is of three varieties: complete, incomplete and dehiscence. The complete type in which the entire layers of the uterus are disrupted, the fetus with or without the placenta usually escapes out the uterus, the incomplete rupture in which a part of scar disrupts and not the entire length but fetal membranes remain intact where as the fetus and placenta remain inside the uterine cavity, and dehiscence used when the serosal layer of the uterus only remain intact. The incidence of rupture uterus is widely varies from 1 in 2000 to 1 in 200 deliveries, Obstetric care reduces it while the increased prevalence of Cesarean Section increases its incidence. The incidence of rupture of scared uterus is 1 – 2 % over Lower Segment Cesarean Section, and 5 – 10 % over classical incision.<sup>(4)</sup> Uterine rupture usually occurs during labour but can also occur during pregnancy.<sup>(17)</sup>

Because the rate of caesarean section is increasing worldwide, we are dealing with an increasing number of mothers with previous caesarean section, with consequent high risk of uterine rupture in next pregnancy.<sup>(21)</sup>

Every year, 6000 women die due to complications of pregnancy and childbirth, uterine rupture accounts for about 8% of all maternal deaths.<sup>(14)</sup> In the developed countries the frequency has dropped significantly but it is still the major health problem in the developing countries.<sup>(7,17)</sup>

## **Uterine rupture: Afive year review** .....H.Basorra, N.Al.kaaky,E.Abdulla, F. Aman

The lack of access to emergency obstetric care facilities and the low utilization of modern maternal services are the identified causes of higher incidence of uterine rupture in developing countries than in the developed countries. <sup>(5)</sup>

In high income countries, the majority of cases occur in women with previous caesarean section, while, in low income countries, it usually results from prolonged obstructed labour, often in unscarred uterus. <sup>(10)</sup>

Causes of uterine rupture are grand multiparty, injudicious use of oxytocin (medically not recommended at this stage but prescribed), obstructed labour, previous caesarean section and myomectomy, uterine instrumentation and manipulation in labour induction, congenital abnormalities of the uterus and fetus and uterine distention due to polyhydromnios, multiple pregnancies and fetal macrosomia. <sup>(15)</sup>

The main cause of uterine rupture in a scarred uterus is the lack of appropriate counseling and in adequate or absence of antenatal care with increasing number of women undergoing trial of labour after a previous caesarean section. In an anticipation of vaginal delivery, separation of previous caesarean scar has become a common cause of rupture, especially, in unskilled hands. <sup>(8,11)</sup>

The aim of the study is to analyze the frequency and factors related of uterine rupture between the year 2012 and 2016.

### **Objectives:**

1. To determine the frequency of rupture gravid uterus at Al-Sadaka Teaching Hospital, Aden, during a period of five years from 1<sup>st</sup> Jan 2012 to 31<sup>st</sup> December 2016.
2. To determine the factors related of uterine rupture, management modalities and feto- maternal outcome of uterine rupture.

### **Material and methods:**

A retrospective analysis of clinical records of uterine rupture cases were managed in the Department of Obstetrics and Gynecology , in AlSadaka teaching hospital from 1<sup>st</sup>Jan 2012 to 31<sup>st</sup> December 2016 .

Factors analyzed from the available 84 cases of rupture uterus sheets include age of mother, parity, gestational age, number of uterine scares, inter pregnancy interval, antenatal care, time of rupture, maternal mortality, and risk factors for rupture uterus;like contracted pelvis, big baby, malpresentation and malposition, obstructed labour, labour induced by oxytocin, multiple pregnancy, congenital uterine abnormalities, abdominal trauma and delayed in receiving intra hospital care.

These data were collected from the sheets using designed questioners, analyzed and processed by using computerizing system SPSS version 16. Data were represented in tables and figures.

### **Results**

Out of 31905 deliveries over the study period from1<sup>st</sup> of Jan. 2012 – 31<sup>st</sup> of Dec.2016 , 84 cases had uterine rupture, giving an incidence of 0.26% or 1 in 323deliveries

**Table no. 1: Incidence of rupture uterus in Al-Sadaka Teaching Hospital - Aden during a five years period from 1<sup>st</sup> Jan. 2012 – 31<sup>st</sup> Dec. 2016**

YEAR	Total deliveries	Ruptured Uterus	
		No.	%
2012	6206	9	0.15
2013	6781	18	0.27
2014	6803	10	0.15
2015	4481	27	0.60
2016	7634	20	0.26
Total	31905	84	0.26

The higher incidence occurred in the year 2015 (0.60%), followed by the year 2016 with (0.26%), and lower percentages was seen in 2013 (0.27%), then the years 2012 and 2014 with the same percentage of (0.15%) for each one of them (Table 1).

**Table no. 2: Maternal characteristic in relation to rupture uterus among 84 cases**

VARIABLE	RUPTURED UTERUS	
	No.	%
<b>Maternal age</b>		
< 20 years	4	4.8
20 – 34 years	49	58.3
≥ 35 years	31	36.9
<b>Gestational age</b>		
< 37 weeks	11	13.1
37 – 42 weeks	71	84.5
> 42 weeks	2	2.4
<b>Parity</b>		
Nullipara	5	6.0
Pluripara (1-3 children)	58	69.0
Multipara (4-5 children)	11	13.1
Grand mulipara (≥ 6 children)	10	11.9
<b>Number of Scar</b>		
No Scars	19	22.6
One Scar	42	50.0
Two Scars	18	21.4
Three Scars	5	6.0
<b>Inter Pregnancy Interval of scared uterus ( total 65)*</b>		
< 12 months	14	21.6
12-<18 months	6	9.2
18-<24 month	8	12.3
≥ 24 months	37	56.9
<b>ANC</b>		
< 4 Visits	51	60.7
≥ 4 Visits	33	39.3
<b>Time of Rupture Uterus</b>		
Ante partum	15	17.8
Intra partum	68	81.0
Post partum	1	1.2
*Interval was calculated for 65 cases with scared uterus while 19 cases without previous scar		

Table no.2showesthat more than half (58.3%) of ruptured uterus cases in the maternal age group 20 – 34 years, and more than one third (36.9%) were in the age group ≥ 35 years, while the reminder (4.8%) were in the age group< 20 years.

Gestational age of 37 – 42 weeks represented most of the cases (84.5%), while less percentages was seen in gestational age < 37 weeks (13.1%) and 2.4% in > 42 weeks.

Regarding parity, most of cases (69.0%) having (1-3 children), multipara (4-5 children) and grand mulipara (≥ 6 children) represented by nearly similar percentage (13.1%) and (11.9%) respectively, but lower percentage was registered for nullipara (6.0%).

Half of the ruptured uterus cases (50.0%) were with one scar, while the previous two scars and history of no scars represented nearly one fifth each (21.4%) and (22.6%) respectively, and only 5 cases were registered as having three scars with a percentage of 6.0%.

Out of the 65 cases of scared uterus nearly more than half (56.9%) were with inter pregnancy interval  $\geq 24$  months, while  $< 12$  months represented (21.6%), and more less percentages were found in inter pregnancy interval from 18- $<24$  month and 12- $<18$  months with a percentage of (12.3% and 9.2%) respectively.

Nearly three fifths of ruptured uterus cases (60.7%) were with antenatal car  $< 4$  visits while two fifth (39.3%) were  $\geq 4$  visits.

Most cases of rupture uterus (81.0%) occurred with intra partum, and (17.8%) occurred with ante partum with only one case (1.2%) with post vaginal delivery .

**Table no. 3: Risk factors of rupture uterus in relation to presence of scar over a 5 years period.**

Risk factor	Scarred uterus (65 cases)						No scar (19 cases)		TOTAL	
	1 scar		2 scars		3 scars		No	%	No	%
	No	%	No	%	No	%				
Big baby	16	69.6	4	17.4	0	0.0	3	13.0	23	27.4
Malpresentation and malposition	5	31.25	5	31.25	1	6.25	5	31.25	16	19.0
Short inter-pregnancy interval	5	35.7	7	50.0	2	14.3	-	-	14	16.7
Labour induced by oxytotic agent	4	44.4	0	0.0	0	0.0	5	55.6	9	10.7
Contracted pelvis	6	75.0	1	12.5	0	0.0	1	12.5	8	9.5
Obstructed labour	1	20.0	0	0.0	0	0.0	4	80.0	5	6.0
Delayed in receiving intra hospital care	3	60.0	1	20.0	1	20.0	0	0.0	5	6.0
Multiple pregnancy	2	100.0	0	0.0	0	0.0	0	0.0	2	2.4
Congenital uterine abnormalities	0	0.0	0	0.0	1	100.0	0	0.0	1	1.2
Abdominal trauma	1	100.0	0	0.0	0	0.0	0	0.0	1	1.2
<b>TOTAL</b>	<b>42</b>	<b>50.0</b>	<b>18</b>	<b>21.4</b>	<b>5</b>	<b>6.0</b>	<b>19</b>	<b>22.6</b>	<b>84</b>	<b>100.0</b>

Table 3 shows that big baby constitutes slightly more than a quarter of the registered risk factors of ruptured uterus cases (27.4%), the majority occurred in the previous one (69.6%).

Malpresentation and malposition (19.0%) distributed equally in the previous one, the previous two scars and unscarred uterus with 31.25% each and less percentage of malpresentation and malposition occurred in the previous three scars 6.25%.

In the short inter-pregnancy interval less than one year (16.7%) half of it 50.0% occurred in the previous two scars and another half between the previous one scar and the previous three scars 35.7% and 14.3%, respectively.

Labour induced by oxytotic agent represented by (10.7%), two third of oxytotic agent terminated in rupture of unscarred uterus occurred in 66.7% while one third of rupture uterus occur after usage of oxytotic agent in previous one scared uterus 33.3%.

Contracted pelvis occur in (9.5%), three fourth occur with previous one scar, and one fourth occur equally between previous two scars and unscarred uterus with 12.5% for each one.

Obstructed labour and delayed in receiving intra hospital medical care registered (6.0%) for each one, 80.0% of obstructed labour occur in unscarred uterus and 20.0% in previous one scar; while delayed in receiving intra hospital medical care occur in 60.0% of previous one scar and one fifth (20.0%) for each of previous two scars and previous three scars.

**Uterine rupture: Afive year review** .....H.Basorra, N.Al.kaaky,E.Abdulla, F. Aman

Two cases with multiple pregnancy with a percentage of (2.4%) all of them occur in previous one scar 100.0%.

Finally congenital uterine abnormalities and abdominal trauma represented the lowest percentage (1.2%) for each one, the only case of congenital uterine abnormalities was occur in previous three scars, while the only case of abdominal trauma was occur in previous one scar.

**Table no. 4:uterotonic agent usage in relation to presence of scared uterus and place of rupture over a 5-years period.**

VARIABLE	uterotonic agent usage			
	YES		NO	
	No.	%	No.	%
Scared uterus	4*	4.8	61	72.6
No uterine scar	5	6.0	14	16.6
Outside hospital	5	6.0	59	70.2
Intra hospital	4**	4.8	16	19.0
*all 4 cases of scared uterus, oxytocin used for them outside hospital by a nurse				
**oxytocin was used for 3 cases and mesoprostol used for termination of 1 case of sever pre-eclampsia intra hospital				

Table 4 shows that uterotonic agent was used for 5 cases outside our hospital, for 4 of them oxytocin was used on scared uterus, while intra hospital oxytocin was used for 3 cases and mesoprostol was used for termination of 1 case of sever pre-eclampsia intra hospital but no one of them having a scared uterus and unfortunately was finished in rupture of the uterus.

The majority of rupture uterus occurred outside hospital (76.2%), while the minority (23.8%) inside hospital.

**Table no. 5: Type of ruptured uterus in relation to maternal and fetal outcome over a 5-years period.**

OUTCOME	Type of rupture uterus								Total	
	Complete		Incomplete		Dehiscence		Complete with rupture bladder			
	No	%	No	%	No	%	No	%	No	%
<b>Maternal death</b>										
Yes	2	100.0	0	0.0	0	0.0	0	0.0	2	2.4
No	23	28.1	37	45.1	22	26.8	0	0.0	82	97.6
<b>Fetal outcome</b>										
A live	5	8.6	30	51.8	22*	37.9	1	1.7	58	67.4
SB	17	60.8	7	25.0	2	7.1	2	7.1	28	32.6
SB:Still Birth										

Table 5 shows that unfortunately, two cases died (both in 2016, March and October), both of them came with complete rupture uterus: one died immediately within 10 minutes of admission before any surgical intervention although she was para one without any previous scar, while the other case died after 4 hours of surgical repair of a complete rupture of the previous one scar uterus as a result of post operative internal bleeding.

Two thirds of ruptured uterus cases (67.4%) produced alive babies, most of them from incomplete rupture of uterus (51.7%) and from uterine dehiscence (37.9%), while the minority were from complete rupture and complete with rupture bladder (8.6% and 1.7%) respectively. One third (32.6%) of babies were lost SB the majority of them (60.8%) were from complete rupture of

uterus, one quarter (25.0%) was from incomplete and the minority were from dehiscence and complete with rupture bladder 7.1% each.

**Table no. 6: Type of ruptured uterus in relation to types of surgery performed for rupture uterus over a 5-years period.**

Surgical intervention	Type of rupture uterus								Total	
	Complete		Incomplete		Dehiscence		Complete with rupture bladder			
	No	%	No	%	No	%	No	%	No	%
Repair	12	19.1	28	44.5	22	34.9	1	1.6	63	75.0
Repair with tubal Ligation	0	0.0	2	100.0	0	0.0	0	0.0	2	2.4
Total hysterectomy	1	50.0	1	50.0	0	0.0	0	0.0	2	2.4
Subtotal hysterectomy	8	50.0	6	37.5	0	0.0	2	12.5	16	19.0
No Surgical intervention	1	100.0	0	0.0	0	0.0	0	0.0	1	1.2

\*Two of dehiscence uterus resulted in alive twins, so the total babies became 86 from 84 pregnancies

Table 6 showed that repair was done for two thirds of ruptured uterus cases( 75.0%) in each type (incomplete 44.5%, dehiscence 34.9%, complete 19.1% and Complete with rupture bladder (1.6%), while subtotal hysterectomy was done for (19.0% ) from which half (50.0%) was done for completely ruptured uterus and less than half (37.5%) for incomplete ruptured uterus and 12.5% was done for complete with rupture bladder, while no subtotal hysterectomy was done for cases with dehiscence of uterine wall.

Finally repair with tubal ligation and total hysterectomy were done for two cases for each one with a percentage of 2.4% each. All the cases of repair with tubal ligation were done for incomplete rupture, while the total abdominal hysterectomy was done for one case with complete rupture and one case with incomplete rupture uterus.

**Discussion:**

Rupture of the gravid uterus is an unexpected, rare, and potentially life threatening devastating complication. It still constitutes one of the most serious obstetrical emergencies.in a developing country like Yemen. It is one of the major obstetric emergencies, and it carries high incidence of maternal and foetal mortality and morbidity.

The incidence of ruptured uterus in this study is0.26%, (or 1 in 323deliveries), a higher incidence of 0.76% or 1 in 131 deliveries, was given by Mukasa et al (2013), in Mbarara, western Uganda <sup>(12)</sup>, and also by Ezegwuiand Nwogu-Ikojo (6), in Nigeria with an incidence of uterine rupture of 1 in 106 deliveries. <sup>(6)</sup>

Lower incidence of rupture uterus was reported by Sinha *et al*(16),over a period of seven years in India to be one in 1633 deliveries (0.061%).<sup>(16)</sup>

The higher rate from the five years in the period of study was on 2015 (0.60%),(the year of the **Yemen war**), in which all the life services in its lowest rate including difficult and harmful transportation, bad socio-economical conditions with the presence of endemic fatal infectious diseases; in addition to supplement victims .

More than half of ruptured uterus cases occurred in maternal age of 20 – 34 years, and term gestational age 37– 42 weeks constitute the majority of cases 84.5%. Pluripara (1-3 children) occurred in 69.0% of the cases, this is in agreement with the results reported by Ezegwuiet alin Nigeria (6).

The majority of our patients were with poor ANC (60.7%), while Ezegwuiet al(6) reported a high percentage of rupture uterus (61%)in patient with good ANC.On the other hand, most of rupture the uterus cases (70.2%) in our study came from home after trial of labour there, or

transferred from another hospital as an emergency after obstructed labor or uterine rupture. In addition to catastrophic condition resulting from bad practice of midwife to give oxytocin and prostaglandin outside the hospital moreover for scarred uterus (4 cases out of 5).

Early identification of non reassuring fetal heart rate patterns can help the obstetrician to suspect uterine rupture early (Sinha *et al*)<sup>16</sup>. However, there is lack of availability of electronic fetal monitors in our institution causing a high rate of intra hospital rupture uterus 19.0%.

The most common predisposing factors for rupture uterus reported by Nkemayim *et al* a<sup>(13)</sup> regrant multiparity, obstetrical trauma, fetal macrosomia, and malpresentations<sup>(13)</sup>. However, in this study, the most common risk factor was big baby (27.4 %) most of them occurred with prior cesarean delivery. Thus, with the continued rising trend of cesarean section, the number of women presenting to the labor ward with a scarred uterus is increasing, thereby exposing them to an increased risk for maternal morbidity, including uterine rupture<sup>(3)</sup>. The single risk factor (history of prior one cesarean section) contributed to 50% of the cases of uterine rupture, and obstructed labour is a single risk factor in unscarred uterus as reported by Kaczmarczyk *et al* <sup>(10)</sup>. Therefore, a great degree of caution should be taken while managing patients with previous uterine scar who are attempting trial of labor. Repeat cesarean delivery should be strongly considered in women with previous scarred uterus.

Rupture of uterus in multi gravidae during labour, is a well-documented complication, but rupture of unscarred uterus is an uncommon event, and in the primigravidae it is extremely rare. But in a tertiary referral hospital it is sometime seen as reported by Alamand Afroz<sup>(2)</sup>. In our study rupture in primigravida was reported in 22.6%, un judicious use of oxytocin was seen in 66.7% of them followed by malpresentation and malposition in 31.25%.

Delayed in receiving intra hospital care constitute for 6.0% of rupture uterus in this study. Prompt maternal supportive and resuscitative measures should be undertaken to avoid catastrophic consequences like life-threatening uterine hemorrhage and maternal shock. (Sinha *et al*)<sup>(16)</sup>.

The choice of the surgical procedure also depends upon the type, location, and the extent of the uterine tear. Several authors considered subtotal or total hysterectomy as procedure of choice; whereas, others recommend that surgical repair is as a first immediate treatment. (Weingold A.)<sup>19</sup>. In our study, repair was achieved in 63 cases with 75.0%, unfortunately not all of them were successful because one of them was terminated in Maternal death after repair, this may reflect bad decision or bad technique done for her in addition to bad post operative care because she survived for 4 hours with internal bleeding before death. Ezegwuiet *al* reported a lower rate (31.7%) for uterine repair alone than ours.

Rupture of the uterus is an obstetric emergency threatening the life of both mother and the fetus and increasing morbidity for both <sup>(9)</sup>. However there are studies reporting maternal mortality rates ranging from 0 to 13% after rupture of the uterus (Aboyeji A)<sup>1</sup>. In this study over a five years period out of 84 rupture died about 2.4%. One of them was already dead on arrival where as the other one died four hours post repair of complete ruptured uterus as mentioned before.

## References

1. Aboyeji A,Ijaiya M, andYahaya U. (2001). Ruptured uterus: A study of 100 consecutive cases in Ilorin, Nigeria. *J ObstetGynaecol Res* 2001; 27:341-8.
2. Alam I, andAfroz H. (2010). Ruptured Uterus in Primiparous Women: case report *JBC PS* 2010; 28.
3. American College of Obstetricians and Gynecologists (2010). ACOG Practice bulletin no. 115: Vaginal birth after previous cesarean delivery. *ObstetGynecol* 2010; 116:450-63.
4. Dutta DC (1998). Rupture uterus. In: *Text book of Obstetrics*, 4th ed. India: New Central Book Agency;1998:647-48.
5. Ebeigbe P,Enabudoso E, and Ande B. (2005). Ruptured uterus in a Nigerian community: A study of sociodemographic and obstetric risk factors. *ActaObstetGynaecol Scand.* 2005; 84:1172-4.
6. Ezegwui H,Nwogu-Ikojo E,Ezegwui H, andNwogu-Ikojo E. (2005). Trends in uterine rupture in Enugu, Nigeria. *J ObstetGynaecol.*2005 Apr; 25(3):260-2.
7. Gessesew A, andMelese M. (2002). Ruptured uterus eight years retrospective analysis of causes and management outcome in adigrat Hospital, Tigary Region, Ethiopia. *Ethiop J Health Dev* 2002; 16:241-5.
8. GilaniS, and Hassan L. (2001). Rupture of pregnant uterus at term. *J Postgrad Med Inst* 2001;15:171-5.
9. Gupta A, andNanda S. (2010). Uterine rupture in pregnancy: a five -year study . *Arch GynecolObstet* 2010; 283 (3) : 437-441.
10. Kaczmarczyk M, Sparen P, Terry P, andCnattingius S. (2007). Risk factors for uterine rupture and neonatal consequences of uterine rupture: a population-based study of successive pregnancies in Sweden. *BJOG.* 2007, 114 (10): 1208-1214.
11. Mobashar I. (2012). Uterine rupture, a preventable catastrophe [Online]. 2007 [cited on 2012 June 12]. Available from URL: [http://pjmh\\_sonline.com/uterine\\_rupture\\_a\\_preventable\\_ca.htm](http://pjmh_sonline.com/uterine_rupture_a_preventable_ca.htm)
12. Mukasa P, Katakyaenga J,Senkungu J,Ngonzi J, Kyalimpa M. and Roosmalen V. (2013). Uterine rupture in a teaching hospital in Mbarara, western Uganda, unmatched case- control study201310:29
13. Nkemayim D,Hammadeh, M, Mink D, and Schmidt W. (2000). Uterine rupture in pregnancy subsequent to previous laparoscopic electromyolysis. Case report and review of the literature. *Arch GynecolObstet* 2000; 264:154-6.
14. Ponndara I, Dawson A, Homer C, and Whelan A. (2013). Practices of skilled birth attendants during labour, birth and the immediate postpartum period in Cambodia. *Midwifery.* 2013, 29 (4): 300-3007.
15. Qazi Q, Akhtar Z, Khan K, and Khan A.(2012). Women health; uterus rupture, its complications and management in teaching hospital Bannu, Pakistan. *Maedica (Buchar)* 2012;7:49-53.
16. Sinha M, GuptaR, GuptaP, Rani R, Kaur R, and Singh R. (2016). Uterine rupture: A seven year review *I J CM*2016; 41(1):45-49.
17. Uzun I, Yildirim A, Kalelioglu I, and Has R. (2010) . Spontaneous rupture of unscarred uterus at 27 weeks of gestation. *Arch GynaecolObstet*; 281;999-1001.
18. Walsh C, and Baxi L. (2007). Rupture of the primigravid uterus: A review of literature. *ObstetGynaecolSurv* 2007; 62:327-34.
19. Weingold A, Sall S, Sherman D, and Brenner P. (1966). Rupture of the gravid uterus. *SurgGynecolObstet* 1966; 122:1233-8.
20. Yap O, Kim E, and Laros R. (2001). Maternal and Neonatal outcome after Uterine rupture in labour. *Am J ObstetGynaecol* 2001;184:1576-81
21. ZeloP, and Heffner L. (2004). The downside of caesarean delivery: short and long term complications. *ClinObstetGynecol*; 2004, 47:386-93.



## انفجار الحبلية : دراسة استعراضية لخمس سنوات في مستشفى الصداقة التعليمي

هدى عبود باصرة، نهلة صالح الكعكي، انتصار محمد عبدالله و فاطمة شفيق امان

قسم النساء و التوليد، كلية الطب والعلوم الصحية، جامعة عدن

DOI: <https://doi.org/10.47372/uajnas.2017.n2.a17>

### الملخص

يهدف هذا البحث إلى معرفة معدل وقوع انفجار الرحم والعوامل المتعلقة به ومختلف الوسائل العلاجية له وعواقبه على كل من الأم والطفل في مستشفى الصداقة التعليمي—عدن 1 يناير 2012 - 31 ديسمبر 2016م. تعدد هذه الدراسة دراسة استعادية وصفية، عملت في مستشفى الصداقة التعليمي العام في الفترة ما بين الأول من يناير 2012م وحتى الحادي والثلاثين من ديسمبر 2016م. أخذت المعلومات من الأرشيف الطبي للمستشفى و تم تحليل النتائج باستخدام برنامج الإحصاء الحاسوب (SPSS-Version 16).

تبيّن من خلال هذه الدراسة أنّ إجمالي المواليد في فترة الدراسة كان 31905، وحالات انفجار الرحم 84 حالة بمعدل (0.26%)، أي بمقدار حالة انفجار الرحم لكل 323 ولادة. قد شكّل أعمار الأمهات ما بين 20 – 34 (58.3%) من الحالات و فترة الحمل ما بين 37 – 42 شكّلت (84.5%) بالنسبة للأمهات اللاتي أنجبن (1-3) من 1 – 3 أطفال شكّلت (69.0%) من الحالات. بالنسبة لعدد العمليات السابق (50.0%) كانت لديهنّ عملية سابقة واحدة و (21.4%) كانت لديهنّ عمليتين سابقتين و (22.6%) ليس لديهنّ عمليات سابقة (6.0%) كانت لديهنّ ثلاث عمليات سابقة. الحالات اللاتي لديهنّ رعاية أولية < 4 زيارات (60.7%) واللاتي قمن بأكثر من 4 زيارات كن (39.3%).

معظم حالات انفجار الرحم (81.0%) ظهرت أثناء الوضع. (27.4%) ظهرت عند الأمهات اللاتي حملن بأطفال دو وزن كبير، ثم شكّل 19.0% الأوضاع غير الطبيعية للطفل في تجويف الرحم، والفترة القصيرة بين الحمل أقل من عام (16.7%)، تحفيز الرحم بمحفزات التقلصات الرحمية (10.7%) خمس منهن خارج المستشفى و أربع منهن لديهنّ عمليات قيصرية. في حين شكّلت النساء ذات الحوض الضيق (9.5%). وشكّلت الولادة المتعسرة وتأخر التدخل العلاجي نسبة (6.0%) لكل منهما، والنسبة الأقل لكل من التشوهات الخلقية للرحم والإصابة المباشرة للبطن (1.6%).

ولسوء الحظ هناك حالتان وفاة للأمهات (66.7%) مع إنجاب أطفال أحياء و نسبة (33.3%) ولدن أطفالهن ميّنين. 75.0% من الحالات تم ترميم الرحم وحوالي، 19.0% استئصال جزئي للرحم ونسبة 2.4% استئصال الرحم مع ترميم المبيض وقنوات فالوب.

**الكلمات المفتاحية:** تضيق الحوض، عملية قيصرية، استئصال الرحم، الولادة المتعسرة، انفجار الرحم ومحفزات التقلصات الرحمية.