To Study the Incidence of Uterine Ruptures in Kashmiri Population

R Khurshid, Mustafa, K Fatima, I shamas, S Mir

Citation

R Khurshid, Mustafa, K Fatima, I shamas, S Mir. *To Study the Incidence of Uterine Ruptures in Kashmiri Population*. The Internet Journal of Gynecology and Obstetrics. 2009 Volume 14 Number 1.

Abstract

Objective:- To study the cases of uterine rupture and find out the incidence in KashmirMethods:- 100 women with uterine rupture were studied over a period of two years (March 2007 to March 2009) in a tertiary care hospital of Kashmir Valley (LDH).Results:- The incidence of uterine rupture was 0.2% (1:467) more common in women with low socio-economic status, 60% of the cases had unscarred uterus, 40% had scarred uterus, 91% of the women with uterine rupture were in labour, 73% ruptures were spontaneous, 48% presented with shock and 38% had abnormal vaginal bleeding.Conclusion(s):- Availing universal proper antenatal care, identification of high risk cases, timely referral to a proper institution and awareness for medically supervised delivery avoid rupture of uterus.

INTRODUCTION

Rupture of the gravid uterus with its sequelae remains one of the most disastrous complications of pregnancy, occurring invariably at or near term[1]. It has adverse effects on the mother and foetus. In India it is accounted for 5-10% of maternal deaths[2]. It reflects the overall socioeconomic development and availability of health care facilities in a country[3]. Though the frequency of uterine rupture has not changed but the etiology of rupture has changed appreciably and its outcome has improved[4]. Uterine rupture of unscarred variety is still common in the developing nations reflecting a grim scenario of poor health care services. In developed countries, rupture of scarred uterus is the primary risk factor mostly during the course of trial of labour for vaginal birth after caesarean section[4-6]. Common etiological factors[7] for uterine rupture are grand multiparity, neglected obstructed labour, previous scar, use of oxytocic agents, superadded with lack of supervision before, during and after delivery[7,8].

MATRIAL AND METHODS

100 women with uterine rupture were studied over a period of two years from March 2007 to March 2009 in Lalla Ded Hospital (a tertiary care centre of Kashmir valley), an associated hospital of Government Medical College Srinagar. Cases included pregnant women reporting with clinical features suggestive of uterine rupture, presenting with suspected rupture after vaginal delivery and developing rupture after admission to the hospital. Relevant history was taken from patients and/or attendants and detailed examination, baseline investigations were done. The operative findings were noted regarding haemoperitoneum, baby and or placenta in peritoneal cavity; site and extent of rupture and associated injuries to other structures were noted. Blood transfusions received during operation and the condition of baby were also recorded. Some patients underwent hysterectomy while as repair was done in some patients. Postoperative patients were monitored carefully and complications noted.

RESULTS

Out of 46,740 deliveries during the period, 100 women had uterine rupture, the ratio being 1:467 deliveries (0.2%). We had more caesarean deliveries because large number of women were referred to our tertiary care hospital for difficulties during labour. 97% of cases were illiterate, 72% had no antenatal care, 84% of women were from rural areas, 91% of cases were in labour and 60% of uterine rupture occurred in unscarred uterus (table 1). Clinical presentation was as shock in 48% of cases, abnormal vaginal bleeding in 38% and abdominal pain and or tenderness in 45%, spontaneous rupture occurred in 73% of cases, 85% were admitted with rupture. 80% of cases had rupture in lower uterine segment, 6% had it it upper segment, while as 14%

had both segments involved. 21% of cases had broad ligament injury, 12% had injury to urinary bladder and 1% of cases sustained ureteric injuries (table 4). Almost all women with uterine rupture needed blood transfusions. 42% developed postoperative infections, 59% of cases with rupture underwent hysterectomy 53% subtotal and 6% total hysterectomy) rest 41% had repair of uterus (table 5).

Figure 1

Table – 1 - Comparison of rupture among previously scarred and intact (unscarred) uteri according to parity.

Parity	No. of Cases in Scarred Uteri	No. of Cases in the Unscarred Uteri
0	0	4
1	17	2
2	14	10
3	7	19
4	1	11
5	1	10
6	0	2
7	0	2
Total	**40**	**60**

Figure 2

Table – 2 - Distribution of cases according to their ages in years

S. No.	Age (Years)	No. of Cases	Percentage
1	21 – 25	15	15
2	26 – 30	34	34
3	31 – 35	42	42
4	36 – 40	7	7
5	41 – 45	2	2

Figure 3

Table – 3 - Distribution of cases in terms of apparent etiological factors

Apparent Etiological Factor	No. of Cases	Percentage
Previous scar (Pr. LSCS)	40	40
Obstructed labour	33	33
Oxytocics / trauma	27	27

Figure 4

Table – 4 - Injuries to other abdominal structures during rupture process

Organs/structures sustained injuries	No. of Cases	Percentage
Broad ligament injuries	21	21
Urinary bladder	12	12
Ureters	1	1

Figure 5

Table – 5 - Profile of definitive surgical procedures

Definitive surgical procedure	No. of Cases	Percentage
Total abdominal hysterectomy (TAH)	6	6
Subtotal hysterectomy (STH)	53	53
Uterine repair	41	41

DISCUSSION

Rupture of gravid uterus in a way is an index of overall socioeconomic development[3], literacy rate and availability of health care facilities in a country has undergone tremendous change in terms of its incidence, etiology and fetomaternal outcome[4,5].

Our incidence of one rupture in 467 deliveries (women) was similar to other studies in third world countries as 1:425 of Lema VM et al [9] and 1:367 of Elkandy AA et al from Egypt[10]. The incidence of rupture has almost remained same as compared to previous study of Dhar et al (1490)[23], but the incidence was higher as compared to 1:2558 of Planche et al in USA[12] and 1:4366 of Gurdal F et al in Ireland[13], 1:1457 of Saglamtus M et al in Turkey[14]. Incidence was low as compared to 1:44 deliveries of Lankoande J et al in West Africa[15]. Incidence of uterine rupture in booked cases is only 12.5% and incidence of rural cases is as high as 80%. Uterine rupture is rare in primigravidae as they usually respond to obstruction with uterine inertia, an incidence of only 2.2% was reported among primigravidae[17]. Oxytocin and prostaglandins are now being used in previous caesarean section cases for augmentation of labour, such practice should be accompanied by great diligence[18].

The higher incidence may be because of a large peripheral rural area cattered only by our tertiary care hospital[23]. 97% of women with uterine rupture were illiterate with a low socioeconomic status. 72% had an antenatal care. 84% were from rural areas similar to 84.7% being unbooked reported by Ogunewa et al[19] and 75% by Vangeenderhuysen C et al[20]. 60% rupture occurred in unscarred uterus while as 40% occurred in scarred uterus (table 1) similar to the report of Khanam et al[21] and 83 and 83.5% reported by Khan S et al[22].

Availability of blood transfusion and timely referred to a tertiary care hospital will go a long way in reducing morbidity and mortality among the pregnant women with difficulties during labour. Availing antenatal care and identification of high-risk cases are most important for avoiding catastrophic outcomes. Injudicious use of oxytocics needed to be deplored. The main effort for reduction and

prevention of this dramatic situation (in Kashmir) requires overall socioeconomic development with special emphasis on literacy of mother and efficient health care delivery system in rural area[11].

References

1. Green PG. Uterine rupture in rural Nigeria. Obst Gynecol. 1974; 44: 482.
2. Retnam SS, Bhaskar Rao. Obstetrics and Gynecology for postgraduates Orient Longman, 1992; 130-132.
3. Al-Mansoori A. Uterine rupture: 50 cases Rev Fr. Gynecol Obstet. 1995; 90: 208-14.
4. Scannsky DC, Benson RC. Rupture of pregnant uterus. A Rev Obstet Gynecol. Survey 1978; 33: 217.
5. Moagokong ET, Marivate M. Treatment of uterine rupture. S. Att. Med J. 1976; 50: 1621.
6. Goan A, Sandbank O, Rubin A. Rupture of pregnant uterus. Obstet Gynecol 1980; 56: 549.
7. Warren C. Catastrophic uterine rupture. Obstet and Gynecol 1981; 64: 492-97.
8. Vardin F. Uterine rupture in Rwanda. Med Trop (Mars) 1983; 43: 37-43.
9. Lema VM, Ojwang SB,Wanjale SH. Rupture of gravid uterus. Afr Med J 1991; 68: 430-41.
10. Elkady AA. Bayomy HM, Bekhiet MT, Nagrib HS, Wahaba AK. Uterine rupture. Int Surg 1993; 78: 23-5.
11. Langombe AO. Obstetric uterine ruptures in rural areas in Zaire. Trop Doct 1994; 24: 90-3.
12. Plauche WC, Von Almen W, Mulla R. Catastrophic uterine rupture. Obstet Gynecol 1984; 64: 792-7.
13. Gardel F, Duly S, Turner JM. Uterine rupture in pregnancy review. Eur J Obstet Gynecol Reprod Biol 1994; 56: 107-110.
14. Saglamtas M. Rupture of the uterus. Int J Gynecol Obst. 1995; 49: 9-15.
15. Lankounde J. Ovedraogo CM, Toure B, et al. Eighty cases of uterine rupture at Burkina Fas. J Gynecol Obstet Biol Reprod (Paris) 1997; 26: 715-9.
16. Pagi SL, Gohil JT. J Obstet Gynecol India 1996; 46: 335.
17. Palanichamy GJ. Obstet Gynecol India 1996; 26: 438.
18. Pitkin RM. Once a caesarean? Obstet and Gynecol 1991; 77: 939.
19. Ogunnovo T. Olayeni O, Afinakha CO (2003). Uterine rupture: UCH, Ibadan expereince, West Aft J Med 2003; 22: 236-9.
20. Vengeenderhuysen C, Sauldi A. Uterine rupture of pregnant uterus: (article in French). Med Trop (Mars) 2002; 62: 615-8.
21. Khanam RA, Khatoon M. Uterine rupture: an ongoing tragedy of motherhood Bangladesh Med Res & Counc Ball 2001; 73-7.
22. Khan S, Parveen Z, Begum S, Alam. Uterine rupture a review of 34 cases at Ayub Teaching Hospital Abbotabad, Pakistan 2003
23. Dhar G: In Rao KB (Ed). Postgraduate Obst and Gynecol (4th Ed) Orient Longman 1989; 192.

Author Information

Rabia Khurshid, MD
Registrar, Department of Obstetrics and Gynaecology, Government Medical College & Associated L.D. Hospital Srinagar Kashmir

Mustafa, MD
Registrar, Department of Obstetrics and Gynaecology, Government Medical College & Associated L.D. Hospital Srinagar Kashmir

Kaneez Fatima, DGO
Registrar, Department of Obstetrics and Gynaecology, Government Medical College & Associated L.D. Hospital Srinagar Kashmir

Irfan ul shamas
Postgraduate, Department of Obstetrics and Gynaecology, Government Medical College & Associated L.D. Hospital Srinagar Kashmir

Shahida Mir, MD
HOD, Department of Obstetrics and Gynaecology, Government Medical College & Associated L.D. Hospital Srinagar Kashmir