ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 8, Issue, 05, pp.31168-31170, May, 2016

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

ACUTE PUERPERAL UTERINE INVERSION: A 3 YEAR STUDY

***Dr. Samiya Mufti, Dr. Samina Sultana and Dr. Samina Mufti**

110/10 Fair Banks Colony, Rawalpora, Srinagar, Pin 190005, India

ARTICLE INFO

Article History:
Received 23rd February, 2016
Received in revised form
05th March, 2016
Accepted 12th April, 2016
Published online 20th May, 2016

Key words:

Uterine inversion,
Puerperal.

ABSTRACT

Background: Acute puerperal uterine inversion is a rare but potentially life-threatening complication in which the uterine fundus collapses within the endometrial cavity. Although the cause of uterine inversion is unclear, several predisposing factors have been described. Maternal mortality is extremely high unless the condition is recognized and corrected.

Methods: This was a prospective observational study, conducted over a period of three years from March 2012 to June 2015. The study included all the patients who developed acute puerperal inversion in the hospital or outside the hospital and were referred as a case of acute puerperal inversion. Patients of chronic puerperal inversion and non-puerperal inversion were not included in the study. Thorough abdominal and pelvic examination was carried out to confirm diagnosis and the observations were recorded.

Results: A total of 71125 deliveries took place which includes 11 cases of puerperal inversion, the incidence being 1 in 6466 deliveries. More than half of the patients (54.54%) were multigravida. Majority of patients(81.8%) presented with features of moderate to severe shock. out of 11 patients in 6 the uterus was reposited back by O'Sullivan Hydrostatic method, two patients had to undergo hysterectomy one for morbidly adherent placenta and another for atonic PPH. In two patients the placenta could be reposited back manually and in one patient laparotomy was required to get the uterus back to its anatomical position. There was one maternal death out of 11 cases.

Citation: Dr. Samiya Mufti, Dr. Samina Sultana and Dr. Samina Mufti, 2016. "Acute Puerperal Uterine Inversion: A 3 Year Study", *International Journal of Current Research*, 8, (05), 31168-31170.

INTRODUCTION

Acute puerperal inversion is a rare but potentially life threatening obstetric emergency in which the uterus is turned inside out partially or completely. The incidence in developed countries is very low but in developing countries where skilled obstetric care is not readily available to a large sector of population especially to rural population; the incidence of acute puerperal inversion is higher. The mortality associated is very high ranging from 15-40%. Puerperal inversion has been classified as first degree, in which fundus has inverted but has not passed through the cervix; second degree in which the inverted fundus has passed through the cervix into the vagina and third degree in which fundus is inverted and is outside vulva. Puerperal inversion has also been classified as acute when it has occurred immediately after delivery and the cervix is open, subacute when more than 24 hours have passed and the cervix has contracted and chronic when more than 4 weeks have elapsed. The puerperal inversion is almost always acute and complete i.e. a third degree type.

****Corresponding author: Dr. Samiya Mufti,***
110/10 Fair Banks Colony, Rawalpora, Srinagar, Pin 190005, India.

MATERIALS AND METHODS

The study was conducted in Post Graduate Department of Obstetrics and Gynaecology of Government Medical College, Srinagar at Lalla Ded Hospital. It was a prospective observational study, conducted over a period of three years from March 2012 to June 2015. The study included all the patients who developed acute puerperal inversion in the hospital or outside the hospital and were referred as a case of acute puerperal inversion. Patients of chronic puerperal inversion and non-puerperal inversion were not included in the study. Thorough abdominal and pelvic examination was carried out to confirm diagnosis and the observations were recorded. Since most of these patients presented with features of shock the resuscitation and examination were done simultaneously

OBSERVATIONS AND RESULTS

From 1st March 2012 to 30th June 2015 a total of 71125 deliveries took place which includes 11 cases of puerperal inversion, the incidence being 1 in 6466 deliveries.

Table I shows the age and parity of all the 11 patients. The age varied between 23 years and 40 years. 6 out of 11 women were multigravida.

Table I.

Patient No.	Age (years)	Parity
1	35	Primipara
2	40	P9
3	29	P3
4	27	Primipara
5	38	P4
6	32	Primipara
7	23	Primipara
8	29	P6
9	28	Primipara
10	34	P2
11	35	P3

According to Table II all the patients reported with 3rd degree inversion except one. This woman had an anterior wall fibroid as well. The placenta had been removed in most of the patients who had delivered at home or in the primary health care centre or a sub-district hospital. 4 out of 11 deliveries were home deliveries conducted by local dais.4 out of 11 had occurred in peripheral hospitals i.e. primary health centre or subdistrict hospital. Only 3 had occurred in Lalded hospital- tertiary hospital.

Table II.

Patient No.	Degree of inversion	Placental attachment at the time of detection	Place of delivery
1	3rd	Not attached	Home delivery
2	3rd	Not attached	Home delivery
3	3rd	Attached	L.D.Hospital
4	2nd	Not attached	SDH
5	3rd	Not Attached	PHC
6	3rd	Not attached	SDH
7	3rd	Not attached	Home delivery
8	3rd	Not attached	Home Delivery
9	3rd	Not attached	L.D.Hospital
10	3rd	Attached	L.D.Hospital
11	3rd	Attached	SDH

Table III shows the number of patients who presented with shock and who required blood transfusion. All the patients presented with features of moderate to severe shock except two both of which had delivered at Lalla Ded hospital. PPH occurred in7 out of 11 patients.

Table III.

Patient No.	Shock (present/absent)	PPH (present /absent)	No. of blood pnt. Transfused
1	Present	Present	2
2	Present	Absent	4
3	Absent	Present	7
4	Present	Present	3
5	Present	Present	6
6	Present	Present	4
7	Present	Absent	4
8	Present	Present	2
9	Absent	Absent	Nil
10	Present	Absent	Nil
11	Present	Present	2

As shown in table IV, out of 11 patients in 6 the uterus was reposited back by O'Sullivan Hydrostatic method, two patients had to undergo hysterectomy one for morbidly adherent placenta and another for atonic PPH. In two patients the placenta could be reposited back manually and in one patient laparotomy was required to get the uterus back to its anatomical position. There was one maternal death out of 11 cases.

Table IV.

Patient No.	Method of replacement	Maternal mortality
1	O'Sullivan hydrostatic	No
2	O'Sullivan hydrostatic	No
3	Hysterectomy	No
4	O'Sullivan hydrostatic	No
5	Hysterectomy	No
6	O'Sullivan hydrostatic	No
7	O'Sullivan hydrostatic	No
8	O'Sullivan hydrostatic	Yes
9	Manual reposition	No
10	Laparotomy	No
11	Manual reposition	No

DISCUSSION

Puerperal uterine inversion is an unusual but potentially life threatening event occurring in third stage of labour. It is associated with significant blood loss and shock which may be out of proportion to the haemorrhage, although this is questionable. In our study which was a prospective observational study, the incidence of acute puerperal inversion was found to be 1 in 6466 deliveries. The incidence varies widely in literature between 1 in 2000 to 1 in 6407. (Platt and Druzin, 1981; Shah-Hosseini and Evrard, 1989) Majority of women presenting with inversion belonged to age group 20-35 years and were multigravida (54.54%). Hosseini and Evrard in their 10 yr retrospective study found that 73% of women in whom uterine inversion took place were primipara (Shah-Hosseini and Evrard, 1989) whereas Seema Dwivedi *et al* in their study saw that majority of women in whom acute puerperial inversion took place were multigravida viz 68.2%. (Seema Dwivedi *et al*., 2013) In majority of cases the placenta had been removed by the time they were detected and referred to tertiary care. In our study 81.8% of cases presented with features of moderate to severe shock.

All of these required blood transfusions; 2-6units. Of this half the patients had delivered at home and the delivery was conducted by local dais. Seema Dwivedi and colleagues also reported features of shock in majority of patients out of which 50% were delivered at home (Seema Dwivedi *et al*., 2013). Brar and colleagues reviewed 56 cases of acute uterine inversion and the range of estimated blood loss was 500– 2500 ml. The average amount of blood transfused was 2 u (range 0–6), and one-third of the patients were diagnosed as clinically shocked (Brar *et al*., 1989). Hussain and colleagues also conducted an eight year study on acute uterine inversions, in which majority of patients presented with features of shock (Hussain *et al*., 2004). None were considered to be shocked out of proportion to the blood loss. The management of uterine inversion has two important components: the immediate resuscitation of the haemorrhagic shock and replacement of uterus. In 54.54% patients in our study the uterus was reposited back by O'sullivans hydrostatic method under general anaesthesia. In two out of eleven patients, uterus could be immediately replaced back manually without anaesthesia. Two

patients required hysterectomy –one because of atonic PPH and another had morbidly adherent placenta. In one patient laparotomy was required to get the uterus back to its anatomical position. There was one maternal death – the patient had reached in irreversible haemorrhagic shock and could not be resuscitated.

Conclusion

In summary, puerperal uterine inversion is a serious but infrequent complication of childbirth associated with major degree of postpartum haemorrhage; the amount of blood loss often being under estimated. Once diagnosed it requires rapid intervention in order to restore haemodynamic stability and to control haemorrhage. Mismanaged third stage of labour with umbilical cord traction and vigorous fundal pressure before placental separation is an important cause of uterine inversion (Still, 1994). Placenta praevia, fundal implantation of placenta and antepartum use of magnesium sulphate may be other related causes. However the underlying causes are not completely understood. Proper education and training regarding active management of third stage of labour, diagnosis and management of uterine inversion should be imparted to traditional birth attendants, so that this potentially life-threatening obstetric emergency could be averted.

REFERENCES

Brar, H.S., Greenspoon, J.S., Platt, L.D. Paul, R.H. 1989. Acute puerperal uterine inversion. New Approaches to Management. *J Repro Med.,* 34: 173–7

Hussain, M., Jabeen, T. Liaquat, N. *et al*. 2004. Acute puerperal uterine inversion. *J Coll Physicians Surg Pak*., Apr;14(4):215-7.

Platt, L.D. and Druzin, M.L. 1981. Acute puerperal inversion of the uterus. *Am J Obstet Gynecol.,* 141: 187–90

Seema Dwivedi, Neena Gupta, Anshu Mishra, Shefali Pande, Pavika Lal, 2013. Uterine inversion: a shocking aftermath of mismanaged third stage of labour; *Int J Reprod Contracept Obstet Gynecol.,* 2(3):295

Shah-Hosseini, R. and Evrard, J.R. 1989. Puerperal uterine inversion. *Obstet Gynecol.,* 73: 567–70

Still, D.K. 1994. Postpartum hemorrhage and other problems of the third stage. In: James DK, Steer PJ, Weiner CP, Gonik B, eds. High Risk Pregnancy Management Options. London: WB Saunders Company Ltd, 1175–7

****