

INDICATIONS AND COMPLICATIONS OF OBSTETRICAL HYSTERECTOMY: SARDJITO HOSPITAL EXPERIENCE

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ABSTRAK

Latar Belakang: Histerektomi obstetri adalah operasi besar dan tetap merupakan salah satu bencana di bidang obstetri. Tindakan ini jarang dilakukan, namun merupakan operasi penyelamatan hidup dalam kasus perdarahan obstetrik yang sulit ditangani. Hal itu terkait dengan peningkatan morbiditas dan mortalitas ibu.

Tujuan: Untuk menentukan indikasi dan komplikasi histerektomi obstetri di RSUP Dr. Sardjito.

Metode: Penelitian ini menggunakan metode penelitian retrospektif kasus histerektomi obstetrik di RSUP Dr. Sardjito pada Januari 2012 hingga April 2015.

Hasil dan Pembahasan: Selama masa studi, 30 histerektomi obstetri dilakukan. Delapan puluh persen kasus merupakan kasus rujukan. Rata-rata usia 32,47 tahun dengan standar deviasi 5,91. Atonia uteri merupakan indikasi yang paling umum (40%), diikuti oleh dehisensi uterus segmen bawah (33,3%), ruptur uteri (16,7%) dan plasenta akreta (10%). Tipe histerektomi yang dilakukan adalah histerektomi supra servikal sebesar 46,7%, histerektomi abdominal total 33,3%, dan histerektomi sesar 6%. Komorbiditas intraoperatif yang paling umum adalah kehilangan darah masif (93,3%). *Disseminated Intravascular Coagulation* (DIC) menyebabkan 30% dari komorbiditas pasca operasi. Kematian ibu mencapai 20%.

Kesimpulan: Indikasi histerektomi obstetri ialah atonia uteri, dehisensi uterus segmen bawah, ruptur uterus, dan plasenta akreta. Komplikasi intraoperatif yang paling sering terjadi ialah kehilangan darah. DIC merupakan komplikasi paska operatif terbanyak dan penyebab utama kematian.

Kata Kunci: Histerektomi obstetrik, atonia uteri, dehisensi uterus segmen bawah, ruptur uteri.

ABSTRACT

Background: Obstetrical hysterectomy is a major operation and remains one of the obstetric catastrophes. It is uncommonly performed, but it is a life-saving operation usually in cases of intractable obstetric hemorrhage. It is associated with an increase of maternal morbidity and mortality.

Objective: To determine the indication and complication of obstetrical hysterectomy in Sardjito hospital Yogyakarta.

Method: This was a retrospective study at Sardjito Hospital from January 2012 to April 2015 on obstetrical hysterectomy cases.

Result and Discussion: During the study period, 30 obstetrical hysterectomies were performed. 80% of patients were referred patients and 20% were inpatient in Sardjito hospital. The mean age was 32.47 years old with standard deviation 5.91. Uterine atony was the most common indication (40%), followed by lower uterine segment dehiscence (33.3%), uterine rupture (16.7%) and placenta accreta (10%). The types of hysterectomy were supra cervical hysterectomy 46.7 %, total abdominal hysterectomy 33.3%, and cesarean hysterectomy 6%. The most common intra operative co-morbidities were massive blood

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loss (93.3%). Disseminated intravascular coagulation (DIC) took 30% of the postoperative co-morbidities. Maternal mortality was 20%.

Conclusion: The indications of obstetrical hysterectomy were uterine atony, lower uterine segment dehiscence, uterine rupture and placenta accreta. The most common intra operative complication was blood loss. DIC was the most common post operative complication and main cause of death.

Keywords: Obstetrical hysterectomy, uterine atony, lowers uterine segment dehiscence, uterine rupture.

INTRODUCTION

Hysterectomy is a surgery to remove the uterus. This procedure usually performed in non gravid uterus or gynecology cases. However, certain circumstances may lead to it being done during pregnancy or after deliveries. It is then called Obstetric Hysterectomy¹. Obstetric Hysterectomy is an uncommon obstetric procedure, usually performed as a life-saving procedure where the life of the mother is threatened in cases of intractable obstetric hemorrhage. Some indication for obstetric hysterectomy are uterine atony, abnormal placentation (bleeding, accrete syndromes), uterine rupture, cervical laceration, postpartum uterine infection, leiomyoma, invasive cervical cancer and ovarian neoplasia.²

Hysterectomy is more commonly performed during or after cesarean delivery but may be needed following vaginal birth. The removal of the uterus at cesarean section is referred to as cesarean hysterectomy while the removal after vaginal birth is called postpartum hysterectomy.³ Peripartum hysterectomy is reserved for situations in which severe obstetric hemorrhage fails to respond to conservative treatment. Types of hysterectomies are supraservical and total abdominal hysterectomy performed using standard operative techniques.⁴ Unplanned hysterectomy usually were done in patients with less than ideal condition and it was associated with significant maternal morbidity and mortality.

The first cesarean hysterectomy was performed in the United States by H.R. Storer in Boston; unfortunately, it was unsuccessful, and the patient expired on postpartum day three.⁵ Edward Porro is credited with the first successful cesarean hysterectomy in which country in 1876. For years the procedure had Dr. Porro's name attached to it, being referred to the Porro Hysterectomy. Over time, more techniques to control bleeding and conserve the uterus have been developed. There are difficulties and complications associated with this procedure, not only due to the surgical technique, but also to the preoperative, perioperative and postperative support needed for the patient. Major complications include blood loss, greater risk of urinary tract damage, disseminated intravascular coagulation until death.²

METHOD

This is a retrospective analysis of 30 cases of obstetric hysterectomies performed over a period of 3 years from January 2012 to April 2015 in Sardjito Hospital Yogyakarta. Data were obtained by reviewing the patient medical record and each data was analyzed in detail include name, registration number, age, indication of hysterectomy, maternal morbidity and mortality.

Hysterectomy performed for any indications during pregnancy, labor and puerperium has been included on this study.

RESULT

Incidence

Over the period of study from January 2012 to April 2015 there were 5395 deliveries and 30 cases of obstetrics hysterectomy, giving the incidence of 0.56% or 5.56 per 1000 deliveries. During this period, 4 procedure followed spontaneous delivery (13.3%), 3 were followed vacuum deliveries (13.3%) and 22 cases after cesarean section (73.3%). This study found that 80% cases were referred from other hospital or clinics and 20% was in patient.

Maternal Characteristic

Patient's age were between 21 years old to 42 years old with mean of 32.4.

Indication

The most common indication for obstetric hysterectomy was uterine atony (40%), the second most common indication was lower uterine segment dehiscence (33.3%), followed by uterine rupture (16.7%) and placenta accreta (10.0).

Table 1. Indication of obstetric hysterectomy (n=30)

Indication	No	%
Uterine Atonia	12	40.0
Lower Uterine Segment Dehiscence	10	33.3
Uterine Rupture	5	16.7
Placenta Accrete	3	10.0
Total	30	100.0

Type of Hysterectomy

The types of obstetrics hysterectomy were supracervical hysterectomy (46.7%), total abdominal hysterectomy (33.3%), and cesarean hysterectomy (20%).

Maternal Outcome

The most common intra operative co-morbidities were massive blood loss (93.3%). DIC

took 30% of the postoperative co-morbidities. Maternal mortality was 20%.

Table 2. Type of hysterectomy

Type of hysterectomy	Freq	%
Total Abdominal Hysterectomy	10	33.3
Supraservical Hysterectomy	14	46.7
Cesarean Hysterectomy	6	20
Total	30	100

Table 3. Maternal morbidity and mortality

Complication	Freq	%	
Intra operative	Massive blood loss	28	93.3
	No complication	2	6.7
Post operative	DIC	9	30.0
	No complication	21	70.0
Mortality	Death	6	20.0
	Survive	24	80.0

Obstetric hysterectomy is a radical, life saving operation that is mostly done for indications that are life threatening for the patient. Establishment of right diagnosis, quick decision making, availability of facility and medical professional are most important and related factors that affect the maternal and fetal outcome.⁶

The incidence of this study was 0.56% or 5.56 per 1000 deliveries. Compare to several previous studies the incidence was much higher. Nohira et al. from Japan, performed study for 14 years from January 1998 to February 2012 with incidence was 0.031% or 0.31 per 1000 deliveries.⁷ Another study from Ibrahim et al from Jewish General Hospital performed 20 year analysis and found the incidence was 0.87 per 1000 deliveries.⁶ However, this number was similar to the study that performed by Singh et al. They conducted a study in Kanpur India for 5 years and found incidence was 0.54% or 5.49 per 1000 deliveries.⁸ Indonesia like other developing

countries, has similar problem such as poverty, lack of antenatal care, awareness of reproductive health and other problem that increased the incidence. The other reason for this higher incidence was due to the fact that our centre is the only tertiary care centre in DIY province and received maximal referrals from district hospital.

The minimum age for patient in this study was 21 years old and maximum age was 42 years old with mean 32.47. This result showed that

most of patient were in reproductive age. Study in Japan performed by Nohira et al. found that the range of age was 23 – 42 years old with the mean of age was 31 years old, similar to our study.⁷

Uterine atony was the most common indication for obstetric hysterectomy in this study (40%). Followed by lower uterine segment dehiscence (33.3%), uterine rupture (16.7%) and placenta accreta (10.0%).

Table 4. Comparison with other reported series

Author	Incidence (%)	Major indication			
		Uterine Rupture	Atonic PPH	Placenta accreta	Lower uterine segment dehiscence
Gupta et al. (2001)	0.26	69.7	9.70	6.30	No Data
Kore et al. (2001)	0.18	38.20	32.30	5.88	No Data
Sinha (2001)	0.38	69.92	9.80	12.57	No Data
Mukherjee (2002)	0.15	38.30	14.90	8.40	No Data
Kanwar et al. (2003)	0.32	36.58	31.71	14.63	No Data
Praneshwari Dev (2004)	0.07	23.00	19.20	26.90	No Data
Sahu (2004)	0.20	38.88	27.70	13.88	No Data
Singh N et al. 2014	0.54	59.04	18.09	14.28	No Data
This study	0.56	16.4	40.00	10.00	33.3

Obstetric hysterectomy due to uterine atony is still high in developing countries including Indonesia. Study from Sarwat Ara et al. in Arab, found that factors related to uterine atony were unbook status, labor induction/augmentation outside hospital, unsupervised delivery, chorioamnionitis due to prolonged labor and trial by traditional birth attendants.⁹

Over the past decades, the trend for obstetric hysterectomy's indications has been changed. It is associated with previous history of cesarean section which increases the risk for uterine rupture, adherent placenta previa and lower uterine segment dehiscence. In this study the second most indication was lower uterine

segment dehiscence. From case series in our centre by Widyasari, it was concluded that high incidence of lower uterine segment dehiscence in our centre are related to infection, the incision of the lower uterine segment was too close to the cervix and poor nutrition.¹⁰

Out of the 30 hysterectomies performed, 14 were supraservical hysterectomy, 10 were total abdominal hysterectomy and 6 were cesarean hysterectomy. This is similar to study from Arab by Sarwat Ara et al. In this study, subtotal or supracervical hysterectomy was preferred procedure to total abdominal hysterectomy since it was safer and quicker procedure. In addition, It was related to less post operative morbidity.⁹

Massive blood loss was the most common intraoperative complication (93.3%) and DIC in the postoperative complication. Study in Japan showed that the occurrence of massive blood loss was 0.076% and 84.6% for previous DIC. In our study the incidence of massive blood loss and DIC was high because most of the cases were referral from other hospital or clinics.⁷

Maternal mortality in this study was 6/30 (20%). Compare to the other study this rate was higher. Study from Najam et al. in India found that the maternal mortality rate was 12.5% (n=3), other study from Kant et al. found that the mortality was 9.7%..^{11,12}

The limitation of this study was most of the patient were referred from other medical facilities.

CONCLUSION

Obstetric hysterectomy is a life saving procedure but the decision should be prompt and performed by experienced surgeon. The indications of obstetrical hysterectomy were uterine atony, lower uterine segment dehiscence, uterine rupture and placenta accreta. The most common intra operative complication was blood loss. DIC was the most common post operative complication and main cause of death. The incidence of obstetric hysterectomy was high in our tertiary hospital and it was more complicated due to increased referral of patients. The associated morbidity and mortality can be reduced by recucitation, available of blood, timely decision, quickness and experience.

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