

Research Article

Maternal Referral at Kalabahi General Hospital : A Descriptive Study

Rujukan Maternal di Rumah Sakit Daerah Kalabahi : Sebuah Studi Deskriptif

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Abstract

Objective: To identify the characteristics of maternal referral to the Obstetrics Emergency Unit of Kalabahi General Hospital, Alor Regency, East Nusa Tenggara, Indonesia during the period of January 1, 2016 to December 31, 2017.

Methods: This descriptive study was conducted to identify the characteristics of maternal referrals. Sampling method used in this study is a total sampling, in which data from register books and medical records of patients referred to Obstetrics Emergency Unit Kalabahi General Hospital from January 2016 to December 2017 were reviewed.

Results: There were 724 referrals to the Obstetric Emergency Unit of Kalabahi General Hospital during the period of 2016-2017, comprising 704 obstetrics cases (97.24%) and 20 gynecology cases (2.76%). Pregnancy risk assessment of these referral cases using Poedji Rochjati Score showed that 353 out of the total 565 cases (62.48%) were high risk pregnancy, and the most frequent cases are severe preeclampsia and eclampsia (46 cases/13.03%), term pregnancy with previous caesarean section (40 cases/11.33%), and breech position 39 cases (11.05%). There are 8 maternal mortality cases caused by delayed referral consisting 5 eclampsia cases and 3 antepartum bleeding cases. Analysis using cross tabulation shows that 97.20% of cases in which the women are aged above 35 were high risk pregnancies. Other cross tabulation shows that 91.55% of grand multiparity cases were high risk pregnancies. There were 452 cases of referral done when the women was in labor, in which 230 cases (50.88%) managed with a caesarean section. Out of those cases, 319 babies (68.02%) were born without asphyxia.

Conclusions: Most of the referral in Obstetric Emergency Unit in Kalabahi General Hospital are labor of high risk pregnancies, where in the most of the cases, the risk factors are either the age of the mother or the parities, which is supported by the finding of maternal mortality case.

Keywords: age, parity, risk pregnancy, the referral system

Abstrak

Tujuan: Mengetahui karakteristik rujukan maternal yang dirawat di IGD Kebidanan RSD Kalabahi Kabupaten Alor, Nusa Tenggara Timur, Indonesia selama periode 1 Januari 2016 – 31 Desember 2017.

Metode: Penelitian ini merupakan survei dengan desain deskriptif untuk mengetahui karakteristik rujukan maternal dengan menggunakan total sampling. Dilakukan telaah menggunakan buku register rujukan, catatan / rekam medis, selama 2 tahun dari Januari 2016 – Desember 2017 di IGD Kebidanan RSD Kalabahi.

Hasil: Dari total 724 rujukan, terdapat 704 (97,24%) kasus Obstetri dan 20 (2,76%) kasus Ginekologi. Berdasarkan risiko kehamilan Skor Poedji Rochdjati sebanyak 353 (62,48%) kasus yang berisiko dari 565 kasus, dimana risiko yang sering terjadi yakni; 46 (13,03%) kasus dengan PEB / Eklamsia, 40 (11,33%) kasus bekas SC sebelumnya, serta 39 (11,05%) kasus dengan letak sungsang. Terdapat 8 kasus dengan rujukan terlambat mengakibatkan kematian ibu dimana 5 kasus dengan eklamsia, dan 3 kasus dengan antepartum bleeding. Tabulasi silang risiko kehamilan dan usia ibu sebagian besar berusia ≥ 35 tahun 97,20% ibu hamil yang berisiko tinggi. Tabulasi silang antara kehamilan risiko tinggi dengan paritas menunjukkan bahwa 91,55% kehamilan Grandemultipara berisiko tinggi. Rujukan inpartu berjumlah 452 kasus persalinan dimana sebanyak 230 (50,88%) kasus dengan melahirkan secara operatif seksio sesaria. Luaran bayi didapatkan 319 (68,02%) dengan bayi bugar dari 469 bayi.

Kesimpulan: Rujukan yang datang di IGD Kebidanan RSD Kalabahi sebagian besar rujukan obstetri inpartu dengan mayoritas kehamilan berisiko tinggi, usia ibu yang berisiko, dan jumlah paritas yang berisiko. Hal ini didukung dengan didaptkannya temuan kasus kematian ibu.

Kata kunci: kehamilan berisiko, paritas, sistem rujukan, usia.

INTRODUCTION

The Sustainable Development Goal (SDGs) has set a target for countries to decrease their Maternal Mortality Rate to less than 70, Toddler/Underfive Mortality Rate to 25 and the Neonatal Mortality Rate to 12 per 1000 live births by the year 2030¹. In order to overcome this challenge, the central and local government of Indonesia has done several off-track efforts, in which it has integrated private sectors, allowing them to participate in a comprehensive, cross-sectoral collaboration. One of the efforts that has been made is the establishment of referral system. The Regulation of the Minister of Health of the Republic of Indonesia Number 001 Year 2012 on Individual Health Service Referral System has set the individual health referral services to be conducted in stages.

The fact that the maternal mortality rate is still high in Indonesia indicate that the improvement of referral system is important, in order to better anticipate the possibility of mortality, and to reduce the mortality rate that occurs mainly in Alor District, NTT Province.

METHODS

This was a descriptive study that reviewed the characteristics of 724 maternal referral cases. Data were obtained from the referral register book and the medical records, for 2 years from January 1, 2016 to December 31, 2017 at the Obstetric Emergency Unit of Kalabahi General Hospital.

RESULTS

During the study period, there were 724 referrals to the Obstetric Emergency Unit in total, comprising 704 (97.24%) obstetric cases and 20 (2.76%) gynecology cases. The most common labor obstetrics cases are premature rupture of membrane (PROM) (94 cases/17.77%), prolonged first stage of labor (46 cases/8.70%), and breech presentation (36cases/6.81%). While the most commonly referred non labor obstetric cases are incomplete abortion (53 cases /30.29%), threatened premature labor (24 cases/13.71%) and Hyperemesis Gravidarum (21 cases/12.00%).

Patients were referred from 26 primary health

care centers (Puskesmas) and 2 mini/moving hospitals (RSB) within the scope of Alor District. Puskesmas Mebung, Puskesmas Moru and Puskesmas Alor Kecil are the health care centers that referred most patients, in which they had referred 86 (11,88%), 78 (10,77%) and 67 (9,25%) cases respectively during the period.

Out of the obstetric cases, 505 women (71.73%) were in the productive/ recommended age range for pregnancy of 20-34 years, however there were also 2 cases of pregnancy in which the mother's age were as young as 16 years old and 1 case in which the mother was 46 years old during the referral.

Based on the Risk of Pregnancy Poedji Rochdjati Score, there are 353 (62.48%) of pregnancy cases at risk from 565 cases of pregnancy. The risk is divided into 3 classes; a). There are 143 (40.51%) Potentials Emergency Obstetric / APGO (Group 1) b). There are 131 (37.11%) cases Obstetric Problem/ AGO (Group 2) and c). There are Emergency Obstetric / AGDO (Group 3) of 79 (22.38%) cases. In the period of 2016 there are 3 cases as delayed maternal referral that resulted in maternal death, with details; 2 cases of eclampsia and 1 case of placenta previa with active bleeding and severe anemia, whereas in the period of 2017 there are 5 cases as delayed referral maternal which resulted in maternal death with details; 2 cases of maternal death with shock + placenta previa, 2 cases with pregnancy + eclampsia and 1 case postpartum with eclampsia.

Assessment of the pregnancy risk categories using the Poedji Rochdjati score, shows that there were 212 (37.52%) cases of Low Risk Pregnancy / KRR. Most of these cases are premature rupture of membrane (68 cases/32.68%) prolonged first stage of labor (29 cases/13.68%), fetal distress (23 cases/10.85%) and imminent abortion (11 cases/5.19%).

In the cross tabulation of age with the risk of pregnancy, there are 104 high risk pregnancy (97.20%) cases out of 107 referral cases in which the mothers are ≥ 35 years of age. Cross-tabulation between parity and pregnancy risk indicates that 91.55% of referrals with grand multiparity are high risk pregnancies.

There were 452 cases of labor referral, where

222 (49.12%) deliveries were vaginal, and 230 (50.88%) deliveries are done through a caesarean section. As for the outcome of the infants, 319 (68.02%) were born healthy without asphyxia and there were 51 (10.87%) cases of Intrauterine Fetal Deaths (IUFD) from the total of 469 infants delivered.

DISCUSSION

The increase in the number of referral cases, can not be separated from the existing Obstetrics Gynecology doctors that working at Kalabahi General Hospital. Recommended mother's age is 20-34 years, while age <20 years and ≥ 35 years is risky. According to previous studies, pregnancy in adolescence is associated with increased incidence of cesarean delivery.^{2,3} Increased incidence in teenage pregnant women also increases the incidence of preeclampsia / eclampsia, preterm labor, premature rupture of membrane, and hypertension. Poor baby outcomes, with complications such as asphyxia, respiratory disorders and LBW are also prominent in teenage pregnancies.^{2,4} Other studies also reinforce the high risk of pregnancy of mothers older than 35 where 34.6% of mothers were found with hypertension, diabetes and increased incidence of abortion.⁴⁻⁶

High-risk pregnancies were found in 97.20% of cases where the mother is older than 35. This result is corroborated by previous studies, showing that the mother aged older than 35 years are at 58% risk of premature labor, and an increased risk of post term pregnancies, abortion, and ectopic pregnancy.⁵⁻⁸ As much as 91.55% mother with grand multiparity were at a high-risk pregnancy.⁸⁻¹⁰ This is supported by the previous studies, showing that higher parity is associated with higher risk of postpartum hemorrhage, abortion, anemia, and complications of the infant such as LBW, asphyxia, and sepsis.⁸⁻¹³

CONCLUSION

Referrals to the Emergency Obstetric Unit of Kalabahi General Hospital are mostly obstetric referrals of high-risk pregnancies, in particular maternal age and parity. This is supported by the finding of maternal death cases. Maternal age contributes to high-risk pregnancy events, as older age allows a decrease in reproductive organ function, while parity is also a factor causing high risk pregnancy. The higher the parity the mother, the more risky a pregnancy is.

SUGGESTION

In order to decrease the high number of high-risk pregnancies and delayed maternal referrals that lead to the increase of maternal mortality, we hope that the findings of this study could be used as an input to the government and that there could be more follow-up studies related to delayed maternal referrals in Alor District, East Nusa Tenggara, Indonesia.

REFERENCES

1. Sekretariat Pembangunan Kesehatan Pasca 2015 Kementerian Kesehatan RI. Keputusan Menteri Kesehatan No. 97 Tahun 2015 RI. Kesehatan Dalam Kerangka Sustainable Development Goals (SDGs) dalam Rakorpop Kementerian Kesehatan RI. 2015.
2. Jaha D, Usta I, Ghulmmiyah. A Review of The Risks and Qonsequences of Adolescent Pregnancy. Departement of Obstetrics and Gynecology American University of Bireut Medical Center. Leb. 2014; 1-8.
3. Mulyawati Isti, Azam Mahalul, Ningrum A N Dina. Faktor – Faktor yang Berhubungan dengan Tindakan Persalinan Melalui Operasi Sectio Caesarea. Jur Kes Univ Negeri Semarang. 2011; 15-24.
4. Kayika Putu I, Utama Teuku. Peningkatan Peningkatan Angka Seksio Sesarea pada Ibu Remaja yang Datang ke Suatu Rumah Sakit Pendidikan di Indonesia. Department of Obstetrics and Gynecology Faculty of Medicine Universitas Indonesia / Dr.Cipto Mangunkusumo Hospital Jakarta. 2017; 131-4.
5. Dewi Sianty, Ferry. Luaran Maternal dan Fetal pada Kehamilan Ibu Usia Lanjut. Department of Obstetrics and Gynecology Faculty of Medicine Universitas Indonesia / Dr.Cipto Mangunkusumo Hospital Jakarta. 2016; 123-7.
6. Irawan Ferry, Indarti Junita. Kajian Karakteristik Kematian Ibu di Rumah Sakit Tersier. Department of Obstetrics and Gynecology Faculty of Medicine Universitas Indonesia / Dr.Cipto Mangunkusumo Hospital Jakarta. 2016; 119-22.
7. Muhammad Rasdiana. Karakteristik Ibu yang Mengalami Persalinan dengan Sectio Caesarea di Rumah Sakit Umum Daerah Moewardi Surakarta. 2014. Universitas Muhammadiyah Surakarta. 2016; 1-15.
8. Rehg Patricia, Krauss Melissa, Spitznagel Edward, et al. Maternal Age and Risk of Labor and Delivery Complications. *Matern Child Health J.* 2016;1-5.
9. Al-Shaikh Ghadeer, Ibrahim Gehan, Fayed Amel, Al-Mandel Hazem. Grand Multiparity and The Possible of Adverse Maternal and Neonatal Outcomes : A Dilemma to be Deciphered. *BMC Pregnancy and Childbirth.* 2017; 1-7.
10. M gaya Andrew, Massawe Sirial, Kidanto Hussein, M gaya Hans. Grand Multiparity : Is It A Risk in Pregnancy ?. *BMC Pregnancy and Childbirth.* 2013:1-8.
11. Andriza. Hubungan Umur dan Paritas Ibu Hamil dengan Kejadian Abortus Inkomplit Di Rumah Sakit Muhammadiyah Palembang Tahun 2013. 2014; 81-6.
12. Pinontoan Veronica, Tombokan Sandra. Hubungan dan Paritas Ibu dengan Kejadian Bayi Berat Lahir Rendah. RSUP Prof, Dr, Kandou. Politeknik Kesehatan Kementerian Kesehatan Republik Indonesia Manado. 2015; 20-5.
13. Rifdiani Izfa. Pengaruh Paritas, BBL, Jarak Kehamilan, dan Riwayat Perdarahan Terhadap Kejadian Perdarahan Postpartum. Departemen Epidemiologi Fakultas Kesehatan Masyarakat Universitas Airlangga Jawa Timur. 2017; 398-407.