Jurnal Kedokteran Syiah Kuala
Volume 18, Number 1, April 2018
Pages: 46-50

ISSN: 1412-1026
E-ISSN: 25500112
DOI: https://doi.org/10.24815/jks.v18i1.11212

RISING RATES OF CAESAREAN SECTION IN dr. ZAINOEL ABIDIN HOSPITAL BANDA ACEH SINCE THE PROMULGATION OF BPJS (PERIODJANUARY 1ST 2014-DECEMBER 31ST 2016)

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Abstrak. Seksio sesarea merupakan suatu proses melahirkan janin dengan membuat irisan pada dinding perut dan rahim ketika proses persalinan normal tidak memungkinkan karena berisiko bagi ibu dan janin. Angka kejadian seksio sesarea di dunia mengalami peningkatan setiap tahunnya terutama di negara berkembang. Terlihat peningkatan angka seksio sesarea di era BPJS yang mulai berlaku sejak 1 Januari 2014, terutama di RSUD dr. Zainoel Abidin yang merupakan rumah sakit rujukan tersier di Provinsi Aceh. Tujuan penelitian ini adalah untuk mengetahui profil persalinan seksio sesarea di RSUD dr. Zainoel Abidin Banda Aceh sejak berlakunya BPJS (periode 1 Januari 2014-31 Desember 2016). Penelitian ini bersifat deskriptif-observasional dengan desain *retrospective study* dan teknik *total sampling*.Pengambilan data dimulai dari bulan Maret-April 2017. Sebanyak 3656 data dikumpulkan dari data sekunder rekam medik. Hasil penelitian menunjukkan terdapat 1669 kasus persalinan pervaginam (45,65%) dan 1987 kasus seksio sesarea (54,35%). Indikasi terbanyak yang menyertai seksio sesarea adalah ketuban pecah dini (32,06%), malpresentasi (8,91%), dan oligohidramnion (8,61%). Kesimpulan dari penelitian ini adalah angka seksio sesarea di RSUD dr. Zainoel Abidin sejak berlakunya BPJS (1 Januari 2014-31 Desember 2016) mencapai 54,35%, angka ini meningkat 41,06% dari tahun 2011-2013 dengan indikasi terbanyak merupakan ketuban pecah dini (32,06%).

Kata kunci: Seksio sesarea, BPJS, RS rujukan tersier

Abstract. *Caesarean section is an operative procedure whereby the fetusesare delivered through an incision on the abdominal and uterine walls where normal deliveries are not possible through maternal and neonatal indication. The incidence of caesarean section in the world is rising year after years particularly in developing countries. The rising of caesarean section rate is seen in BPJS era started since January 1st, 2014, especially in dr. Zainoel Abidin Hospital which is a tertiary referral hospital in Province Aceh. The purpose of this study was to find out the profile of caesarean section in dr. Zainoel Abidin Hospital since the promulgation of BPJS (period January 1st, 2014- December 31st, 2016). This was a descriptive-observational study with retrospective design and total sampling technique. The data were obtained in March-April 2017. Three thousands six hundreds and fifty six secondary data from medical record were enrolled in this study. The finding showed that there were one thousand six hundreds and sixty nine vaginal deliveries (45,65%) and one thousand nine hundreds and eighty seven (54,35%) caesarean sections. The most frequent causes to caesarean sections were premature rupture of membranes (32,06%), malpresentation (8,91%), and oligohydramnion (8,61%). The conclusion of this study were the incidence of caesarean sections in dr. Zainoel Abidin Hospital since the promulgation of BPJS (January 1st, 2014-December 31st, 2016) was 54,35%, this number is increased by 41,06% than the year of 2011-2013 with the most frequent cause is premature rupture of membranes (32,06%).*

Keywords*: Caesarean section, BPJS, Tertiary referral hospital*

Background

Social Insurance Administering Organization (SIAO, *Indonesian: Badan Penyelenggara Jaminan Sosial/BPJS*) is an organization established to organize national health insurance program in Indonesia according to law number 24 2011 and law number 40 2004 regarding national social insurance system, article 5 verse 1 and article 52. Every Indonesia citizen and a foreigner who has stayed in Indonesia for at least 6 months shall be a member of BPJS.(1)

BPJS provides a guarantee of health care cost for pregnant women during and after delivery, including pregnancy screening, delivery assistance, post partum haemorrhage, family planning after delivery, and complications related to pregnancy.(2)

The incidence of caesarean section (CS) in Indonesia is increasing every year. The CS in 2000 was 47,22% increased to 53,2% in 2004, then increased to 53,68% in 2006. Various studies conducted in Indonesia. This number is higher than the standard of 20-25%. The percentage of CS in private hospital also is increasing to 30-80% of all types of delivery. [3]

Dr. Zainoel Abidin Hospital is the only tertiary referral hospital in Aceh. The number of CS before BPJS era since 2011-2013 was 1407 (43,34%) from 3425 cases of delivery.

Based on the background told in preface, we would like to do a study about the profile of CS at dr. Zainoel Abidin Hospital Banda Aceh since the promulgation of BPJS (period January 1st, 2014- December 31st, 2016).

Sample and Method

This is a descriptive-observational study with retrospective design and total sampling technique. The secondary data from medical records were obtained in April to May of 2017. There were 1987 cases of CS since the promulgation of BPJS (period January 1st, 2014-December 31st, 2016).

Results

Table 1 showed there were 1987 cases of CS and 1669 cases of vaginal delivery. Table 2 indicates that women underwent CS was dominated by the age group of 26-35 years with 57,52%, while the least age group underwent CS was the age group of ≥36 years with 18,52%. Table 3 showed the number of parity of the mothers, the women underwent CS was dominated with multiparous. Table 4 showed history of CS in previous pregnancy. The result showed that 24,46% of patients who underwent CS had history of CS in previous pregnancy. Table 5 showed the baby's outcome. The table showed that 98,74% baby were born alive. Table 6 provided tha indication of CS in dr. Zainoel Abidin Banda Aceh. The indication of CS in most cases was premature rupture of membranes with 32,06%, then followed by malpresentation with 8,91%, oligohydramnion with 8,61%, post date with 8,91%, severe preeclampsia with 7,60% and cephalopelvic disproportion with 6,69%.

Type of Delivery	Number	%
Vaginal delivery	1669	45,65%
Caesarean Section	1987	54,35%
Total	3656	100%

Table 1. The distribution of delivery types (2014-2016)

Age	Number	%
17-25	476	23,96%
26-35	1143	57,52%
≥36	361	18,52%
Total	1987	100%

Table 2. The distribution of age of the mothers (2014-2016)

Number of parities	Number	%
Primiparous	641	32,36 %
Multiparous	1346	67,74 %
Total	1987	100%

Table 3. The distribution of number of parities (2014-2016)

History of CS	Number	%
Yes	486	24,46 %
No	1501	75,54 %
Total	1987	100%

Table 4. The distribution of history of CS in previous pregnancy

Baby's outcome	Number	%
Alive	1962	98,74%
Dead	25	1,26%
Total	1987	100%

Table 5. The distribution of baby's outcome

Indication	Number	%	Indication	Number	%
PROM	637	32,06%	Uterine fibroid	6	0,30%
Malpresentation	177	8,91%	Hyperthyroid	6	0,30%
Oligohydramnion	171	8,61%	GDM	4	0,20%
Post Date	166	8,35%	HELLP Syndrome	3	0,15%
Severe Preeclampsia	151	7,60%	Ovarium Cysts	2	0,10%
Cephalopelvic disproportion	133	6,69%	High myopia	2	0,10%
Contracted pelvic	116	5,83%	Uterine rupture	2	0,10%
Plasenta Previa	79	3,98%	Hepatitis B	2	0,10%
Dystocia	76	3,82%	Anemia	2	0,10%
Fetal Distress	51	2,57%	Hidrocephalus	2	0,10%
Impending eklampsia	45	2,26%	Massive Ascites	1	0,05%
Makrosomia	36	1,81%	Secondary Infertility	1	0,05%
IUI	28	1,41%	Inguinal hernia	1	0,05%
IUFD	15	0,75%	Inferior Paraplegya	1	0,05%
Multiple pregnancy	14	0,70%	Mild head injury	1	0,05%
Eclampsia	13	0,65%	HNP	1	0,05%
Superimposed preeclampsia	11	0,55%	HIV	1	0,05%
Bronchial Asthma	9	0,45%	ITP	1	0,05%
CHF	8	0,40%	Total	1987	100%
Primary infertility	7	0,35%			

Table 6. The indication of CS in dr. Zainoel Abidin Hospital Banda Aceh (2014-2016)

Discussion

According to the data collected since 2014-2016, the incidence of CS in dr. Zainoel Abidin Banda Aceh was 54,35% and vaginal delivery was 45,65%. There were 1407 cases of CS in dr. Zainoel Abidin in 2011-2013. The number was increasing to 1987 cases of CS in 2014-2016. The incidence of CS in Indonesia is increasing every year. In 2000, there were 47,22% cases of CS, then increased to 53,2% in 2004, 53,2% in 2004, and 53,68% in 2006.[4] Based on the study of Helal's *et al* in 2013, there were 47,25% cases of CS at Mansoura Hospital, Egypt. It was declared that the rising rates of CS at Mansoura University is the only tertiary referral hospital in Province Dakahlia, Egypt. Some of the women referred to this hospital had serious obstetrical complications from private clinics and public hospital.[5] This condition is similar to dr. Zainoel Abidin Hospital which is the only tertiary referral hospital in province Aceh, Indonesia. According to other study held by Anggraini and Andayasari in 2013 in two hospital in Jakarta, Indonesia, the rates of CS was 65,4%.[16]

According to our study, the women underwent CS were mostly multiparous (67,74%), while primiparous was 32,265. Fawzy, in his research in 2016, found that the incidence of CS in multiparous was 77%, while primiparous was 33%.[8] The study of Suryati, 2010, primiparous underwent CS were 72%, while primiparous were 38%. The most common causes of CS in multiparous are history of CS in previous pregnancy, antepartum haemorrhage (plasenta previa, plasenta abruptio), and malpresentation (breech presentation and transverse lie). While the common causes of CS in primiparous are induction failure, fetal distress, cephalopelvic disproportion, dystocia, malposition and malpresentation.[11] CS should be indicative, considering the morbidity and mortality that can occur during and after surgical procedures.

The result of this study also showed that 24,46% of women underwent CS had history of CS in previous pregnancy. Gjonej, in his study (2015) provided the data of women underwent CS in Albania. It was known that 36,5% of women underwent CS had history of CS in previous pregnancy.[12] Regarding to the study of Duarte et a in Portugal (2015), 11,5% women underwent CS also had history of CS in previous pregnancy.[13] The CS in former CS is a relative indication for subsequent CS. Vaginal deliveries in this case may be possible but risky for the mother and the fetus. CS in former CS is performed when the previous indication for CS will recur at the next delivery, such as contracted pelvic. Other indication including repeated caesarean section (≥2 times), classic caesarean section, and wound dehiscence.[10]

According to this study, it is known that 98,74% of the babies born from caesarean section were alive, while the other 1,26% were born dead. Regarding to the study of Astoguno in Manado (2016), 98,2% babies from the mother underwent CS were born alive, while 1,8% were born dead. [14] Antepartum fetal death is a condition where the fetus has passed the viabilityperiod in the womb, also know as Intra Uterine Fetal Death (IUFD). Fetal death associated with maternal, fetal, and placental factors. The most common maternal factors are maternal illnesses such as hypertension, diabetes, infections, or immunologic diseases such as SLE. The most ideal delivery in the case IUFD is by induction of labor. CS in this case is performed in condition with placenta previa, repeated history of CS, and malpresentation.[11]

Based on this research, PROM was ranked first for the indication of CS in dr. Zainoel Abidin Hospital since the promulgation of BPJS (period January 1st, 2014- December 31st, 2016) with 32,06%. The research of Bhakti Rahayu Surabaya Hospital in 2011 using descriptive methods showed that the most factor affecting CS in primiparous is PROM. PROM is defined as premature rupture of membranes, this can occur in the late or early pregnancy and before delivery. The result of this study indicate a higher rate compared to other educational hospitals in several major cities in Indonesia as showed in dr. Rirngadi Hospital Medan 2,27%, dr Hasan Sadikin Hospital Bandung 5,05%, dr. Cipto Mangunkusumo Hospital Jakarta 11,22%, and Sanglah Denpasar Hospital Bali with 13%. [15] PROM occurs in 10% of all pregnancies. The complications occurs in PROM are premature labor, infection, cord prolapse, oligohydramnion, placental abruptio, pulmonal hypoplasia, neonatorum sepsis, and increased perinatal morbidity. Labor often will generally occurs in

24-48 hours afterwards. However, induction of labor may be performed when the gestational age is ≥34 weeks. Caesarean section is performed when the induction of labor is failed and malpresentation.[11]

Conclusion

Based on the research we held, it can be concluded that caesarean section dominated the type of delivery in dr. Zainoel Abidin Hospital banda Aceh since the promulgation of BPJS (period January 1st, 2014- December 31st, 2016) with 54,35%. The most common indication was premature rupture of membranes with 32,06%.

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