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RESEARCH

The Relationship Between Changes in Anterior Point B (BA) and Baby Birth Weight in Normal Delivery

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Abstract

Background : Pelvic organ prolapse (POP), also known as urogenital prolapse, is a decrease in pelvic organs which causes protrusion of the vagina, uterus or both. Determination of POP is seen from anterior vaginal wall prolapse (cystocele), uteri (urethrocele) and posterior vaginal wall (rectocele). In identifying the incidence of POP can be seen by knowing anatomic abnormalities, especially cystoceles, based on the degree measured by the Prevalence Organ Prolapse Quantification (POPQ) system. In the cystocele the POPQ assessment is focused on the anterior B point (Ba), which is the point that is in the anterior vaginal wall, between the Aa point and the anterior fornix.

Objectives : determine the relationship between changes in anterior point B with the birth weight of infants in normal labor.

Method: This study was conducted with a cross sectional comparative study method in the obgin polyclinic Prof. dr. Hanafiah Batusangkar from September to December 2017. The number of samples was 74 people with 37 people in the group with an anterior point B change > 3 cm and 37 people in the group with an anterior point B change < 3 cm. Data analysis using SPSS version 22, the results of statistical tests were significant if $p < 0.05$.

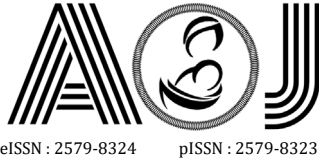
Results: There was a relationship between age ($p = 0.041$) and parity ($p = 0.047$) with changes in anterior B point (BA) in normal labor and women who gave birth to birth weight. 3500 gram babies had 2.7 times the chance to experience changes in anterior B points (BA) of > 3 cm.

Conclusion: this study is that there is a relationship between birth weight of babies with anterior point B changes.

Keywords: Pelvic Organ Prolap, Prevalence Organ Prolapse Quantification (POPQ), Anterior Point B

INTRODUCTION

Pelvic organ prolapse (POP), also known as urogenital prolapse, is a decrease in pelvic organs that causes protrusion of the vagina, uterus or both. This condition can damage the anterior, posterior vaginal wall, and uterine or vaginal crest, which generally appears as a combination of several conditions above.^{1,2,3,4} Determination of POP seen from anterior vaginal wall prolapse (cystocele), uteri (urethrocele) and posterior vaginal wall (rectocele).^{5,6,7} In identifying POP events can be seen by knowing anatomic abnormalities, especially the



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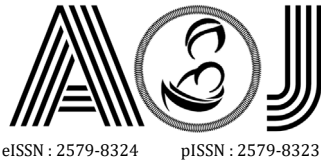
cytocele, based on the degree measured by the Prevalence Organ Prolapse Quantification (POPQ) system.^{8,9,10} In the POPQ cystocele the focus is focused at point B anterior (Ba), the point that is in the anterior vaginal wall, between point Aa and the anterior fornix.

Pelvic organ proliferation is a condition that affects a woman's quality of life. Percentage of pelvic organ proliferation reaches 35–50% of women and its incidence increases with increasing parity and age.^{14,15} It is estimated that 50% of women who have given birth will suffer from pelvic organ prolapse, and nearly 20% of gynecological cases undergoing surgery are cases of pelvic organ prolapse . Other studies reveal an estimated 11% of all women at risk of undergoing pelvic organ prolapse surgery.^{16,17,18} The number of patients diagnosed with pelvic organ prolapse who visited the Gynecology Polyclinic of RSUP.DR.M.Djamil Padang from January 2007 - July 2009 was 173 people (76.21%). The number of patients with a diagnosis of pelvic organ prolapse who visited the gynecological clinic of RSUP.DR.M.Djamil Padang who were only outpatient / conservative were 67.63% and who were hospitalized for operative measures were 56 people (32.37%).

This study aims to determine the relationship between anterior point B changes with the birth weight of infants in normal labor.

METHOD

This research was conducted with a cross sectional comparative study method in the Obgin Polyclinic of Prof. dr. Hanafiah Batusangkar from September-December 2017. The number of samples was 74 people with 37 people in the group with an anterior point B change > 3 cm and 37 people in the group with an anterior point B change <3 cm. Sampling was done by consecutive sampling. Data analysis was performed using the Chi Square test and Prevalence Odds Ratio calculations were performed. Statistical test results were carried out at 95% confidence interval, significant if $p < 0.05$. Data were analyzed using SPSS version²².



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Website:<http://jurnalobgin.fk.unand.ac.id/index.php/JOE>**RESULT****Table 1.** Characteristics of Respondents by Age, Pregnancy Age and Parity with Changes in Anterior Point B (BA) in Normal Labor

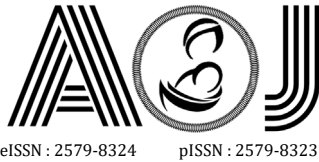
Variable	Change of Point BA				Total		p value
	> 3 cm		<3cm		F	%	
	F	%	F	%			
Age							
<20 years old	1	2.7	3	8.1	4	5,4	0.041
20-35 years old	19	51.4	24	64.9	43	58.1	
> 35 years old	17	45.9	10	27	27	36.5	
Gestasional Age							
<39 weeks	3	8.1	10	27	13	17.6	0.067
> 39 weeks	34	91.9	27	73	61	82.4	
Parity							
Multipara	32	86.5	26	70.3	58	78.4	0.047
Grande Multipara	5	13.5	11	29.7	16	21.6	

In Table 1 it is known that there is a relationship between age ($p = 0.041$) and parity ($p = 0.047$) with changes in the anterior point B (BA) in normal labor (p value < 0.05). However there was no relationship between gestational age ($p = 0.067$) with changes in anterior point B (BA) in normal labor (p value > 0.05).

Table 2. Relationship between Birth Weight of Infants with Anterior Point B Changes (BA) in Normal Labor

Baby Birth Weight	Change of Point BA				Total		POR	p value
	> 3 cm		<3 cm		F	%		
	F	%	F	%				
2500-3000	1	2.7	19	51.4	20	27	2.7	0.000
> 3000-3500	5	13.5	17	45.9	22	29.7		
> 3500	31	83.8	1	2.7	32	43.2		
Total	37	100	37	100	74	100		

In table 2 it is known that the change in BA point > 3 cm is more for respondents with > 3500 gram birth weight that is 83.5% compared to $> 3000-3500$ gram which is 13.5% and 2500-3000 gram 2.7%. Based on the results of the chi square statistical test it is known that the value of $p = 0,000$ (p value < 0.05) then there is a relationship of birth weight of babies with anterior point B changes (BA) in normal labor. Based on risk factors obtained POR 2.7 means that women who gave birth to birth weight 3500 grams have a 2.7 times chance to experience changes in the anterior point B (BA) of > 3 cm.



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DISCUSSION

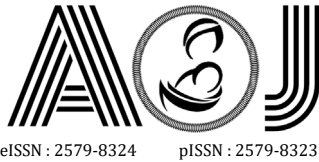
Pelvic organ prolapse is a form of pelvic floor dysfunction in women. Pelvic floor dysfunction itself is a state of disruption of pelvic floor function, is one of the many health conditions complained of by women. Some diagnoses that represent this condition are pelvic organ prolapse, urinary incontinence, anal incontinence, and complaints of female sexual dysfunction.^{9,20} Pelvic floor dysfunction is more common in women who have given birth compared to nulliparous. Vaginal delivery is a very influential factor in the incidence of female pelvic floor dysfunction. More than 46% of women with a history of vaginal delivery experience pelvic floor dysfunction. Increasing the amount of parity increases the risk of pelvic floor dysfunction, especially pelvic organ prolapse. Parity is also a very important risk factor in young women (20-34 years). Complaints of pelvic floor dysfunction can occur immediately in the postpartum period or after several years later. In the history of spontaneous labor it is 58%, while in abdominal labor it is slightly lower (43%).

Pelvic organ prolapse (POP) that occurs due to weakness of the pelvic floor supporting structure can cause a decrease in the vaginal wall, uterus, bladder, urethra, rectum, and intestine into the vagina.⁵ Although it does not cause death, this condition potentially reducing the quality of life of women. The etiology of POP itself is divided into intrinsic and extrinsic factors. Intrinsic factors are collagen, genetics, race, aging, and menopausal conditions. Extrinsic factors are pregnancy and childbirth, history of hysterectomy, parity, hormone replacement therapy, increased body mass index, constipation, illness and occupation associated with increased long-term intra-abdominal pressure. The diagnosis of POP is made through history taking, physical examination, as well as gynecological examination and investigations.^{19,20}

Various problems in the perineum can also be conveyed as a form of pelvic floor dysfunction in women. There is a relationship of birth weight of babies with anterior point B changes (BA) in normal labor due to birth weight of babies > 3500 grams will cause an increased risk of spontaneous perineal damage, increased the risk of perineal damage involving the anorectum, pudendal nerve injury, and significantly higher anal sphincter pressure. Vaginal delivery with a heavy baby can also increase the risk of stress type urinary incontinence. This is consistent with the theory which states the cause of damage to the pelvic floor, one of which is fetal weight.^{19,20}

CONCLUSION

There is a relationship of birth weight of babies with anterior point B changes



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