
OBSTETRICS

Prevalence and Risk Factors of Striae Gravidarum in Primiparae

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ABSTRACT

Objectives: To determine the prevalence and associated factors of striae gravidarum in Thai singleton primiparae.

Study design: Descriptive study.

Materials and Methods: Two hundred and seventy-two primiparous women who had delivered after 20 weeks of gestation at Bangkok Metropolitan Administration Medical College and Vajira Hospital were recruited. Data were obtained by interviewing postpartum women according to the pre-constructed questionnaires. The questionnaires were composed of four categories: general data, pregnancy data, the symptoms of appearance of striae gravidarum and application of cosmetic products such as cream or lotion. The characteristics of participants with and without striae gravidarum were compared.

Results: Sixty-seven point six percent of the study participants developed striae gravidarum. From multivariable analysis, the most significant factor was inflammatory acne (odds ratio = 6.7, 95% confidence interval [CI] 2.3-19.7; p-value = 0.001) compared with those without acne or with non-inflammatory acne. Other significant associated factor (p-value < 0.05) were: age \leq 25 years (odds ratio 4.8; 95% CI 2.4-9.5), body mass index (BMI) \geq 25 kg/m² (odds ratio 2.8; 95% CI 1.0-7.5), light skin color (odds ratio 2.1; 95% CI 1.1-3.9) and fetal birth weight > 3000 g (odds ratio 1.9; 95% CI 1.0-3.6).

Conclusions: The prevalence of striae gravidarum in Thai singleton primiparae was 67.6%. Inflammatory acne developed during pregnancy, younger maternal age, high pre-pregnancy BMI, light skin color, neonatal birth weight > 3000 g were associated with striae gravidarum.

Keywords: striae gravidarum, prevalence, acne, skin color

Introduction

Striae can develop in a variety of circumstances, some of which involve physical

stretching of the skin, such as adolescent growth spurts, pregnancy, some develop during hormonal changes, such as Cushing's syndrome.^(1,2) Striae

gravidarum is the striae that develops during pregnancy as a linear mark on the abdomen, breasts, hip, buttock or thighs. The colors of the striae can be ranged from pink red to brown.

Striae gravidarum affects 50-90 % in white women.⁽¹⁻³⁾ Even though it is not harmful to the life, it can create itching, burning and emotional distress.

Since the cause of striae gravidarum remains unknown,⁽⁴⁾ there is no effective method to protect or treat striae gravidarum at this moment. In the past, many studies tried to correlate the presence and intensity of striae with various abnormalities of pregnancy and labour, but they were unable to prove any clear relationship. Various factors have been reported to be associated with striae gravidarum with conflicting data such as change in elasticity of skin,⁽⁵⁾ change in body weight between pregnancy,^(1,6,7) genetic^(3,8,9) and fetal birth weight.^(2,6,8-10) Possibly striae is very difficult to score them and some photographic method of measuring striae might light on this problem.

In this study, we want to evaluate the prevalence of striae gravidarum in singleton pregnancy. Factors which might be associated with the appearance of striae gravidarum were also evaluated.

Materials and Methods

After approval from the Institutional Ethics Committee, Bangkok Metropolitan Administration Medical College and Vajira Hospital. Cross sectional study was carried out on 272 primiparae, who delivered a single baby with gestational age of at least 20 weeks at our institute between August-September, 2008. The sample size was calculated for the prevalence of striae gravidarum which was the main objective of this study. With the α error of 0.05, the prevalence of 77% of presence of striae gravidarum in primiparae from pilot study of 50 postpartum women, and with the acceptable error of 5%, the sample size was 272.

The questionnaires were used to interview the postpartum mothers, who had already given informed consent, during the immediate postpartum period

(within 3 days). The questionnaires were composed of four categories of general data including socioeconomic and some interesting history (age, family income, water drinking habit, smoking and alcoholic drinking habit, presence and characteristics of acne during pregnancy, personal history and first degree family history of striae), pregnancy data (gestation age at birth, fetal birth weight, fetal gender, body weight before pregnancy, weight gain during pregnancy), the symptoms and appearance of striae gravidarum (itching, burning sensation), use of cosmetic products (cream, lotion, or oil) to prevent striae (onset of the use, frequency and regularity of applying). The women were counted as using cosmetic products to prevent striae, if they applied the cosmetics to the abdominal area regularly. They may or may not apply cosmetics to prevent striae at other areas. The water drinking habit was evaluated by asking about average number of cup of water drinking in each day. One cup was referred to the volume of about 200 ml. Physical examinations were carried out after completing the questionnaires by the author (RL). The skin color at the inner upper arms were evaluated using the color strip from Garnier's cosmetic manufacture,⁽¹¹⁾ which scored from pale to dark color as the score of 1-16. The presence, number of lines and color of striae at four common sites of abdomen, hips, breasts and thighs or buttocks were evaluated.⁽⁷⁾ The number of lines of striae was recorded as follows: no striae = 0; <5 lines of striae = 1; 5-10 lines of striae = 2; and >10 lines of striae = 3. The color of striae or degree of erythema was recorded as followed: no erythema = 0; mild erythema (light red or pink) = 1; marked erythema (dark red) = 2; and violaceous erythema (purple) = 3. At each site, striae were scored up to a maximum of 6; 0-3 for number; and 0-3 for the degree of erythema. The score were then totaled out from 4 evaluated sites to a maximum of 24. Women with a total score of 0 were graded as having no striae, a total of 1-3 were graded as having very mild and no significant striae, 4-9 = mild, 10-15 = moderate and >16 = severe striae. Silvery white striae were considered to be old striae developed prior to

pregnancy and were therefore not included in the analysis. Moreover before recording about the striae, the pregnant women would be asked whether the striae developed prior to pregnancy or not. If the striae had developed before pregnancy, that striae would not be included in the striae score.

Data were analyzed using SPSS statistical software version 11.5 (SPSS, Chicago, LL, USA). Descriptive statistics were used and summarized as frequency with percentage or mean with standard deviation. Chi-square test was used for univariable analysis while multiple logistic regression was used for multivariable analysis. P-value of < 0.05 was regarded as statistical significance.

Results

From 272 included pregnant women, the mean age was 24.1 ± 6.2 years. Average maternal body weight and BMI before pregnancy were 50.9 ± 8.8 kg and 20.6 ± 3.4 kg/m², respectively (Table 1). No one had smoking or alcohol drinking habit. The average water intake in these women was 8.3 cups/day. 114 (41.9%) had some striae at other sites such as hips, thighs, or buttocks before pregnancy. No one has old striae in the abdominal area. 148 cases (54.4%) reported having first degree family history of striae gravidarum (mother and/or sisters), in which 103 cases (37.9%), 21(7.7 %) and 24 (8.8 %) were mother, sisters and mother, and sisters, respectively. There were 190 (69.9%) women who applied some kinds of cosmetic products such as lotion, cream or oil around the abdominal area to prevent striae gravidarum. Of these, 36 women (18.9 %) used before pregnancy, in those who started using it during pregnancy period, they began to use at average of 12.4 ± 7.7 weeks of gestation. Most of them applied cosmetic products twice a day, the remaining applied once a day (30 women ,15.8 %) or 3 times per day (11 women, 5.8 %), amongst these 68.4 % applied it regularly.

The average body weight and BMI at the time of delivery were 65.5 ± 10.0 kg. and 26.6 ± 3.8 kg/m², respectively. The increasing weight and BMI during pregnancy were 14.7 ± 5.0 kg. and 6.0 ± 2.0

kg/m², respectively. The mean gestational age at delivery was 38 weeks 1 day \pm 1 week 6 days. There were 151(55.5%) male fetus and 121(44.5%) female fetus. The mean neonatal birthweight of the newborn was 2994 g (Table 1).

Of the 272 women, 88 women (32.4%) had no striae, while 26 (9.5%), 90 (33.1%), 44 (16.2%), and 24 (8.8%) had very mild, mild, moderate and severe striae, respectively. In the striae group, 46 women (25.0%) were unable to recall when the striae had begun, of those 138 who could recall, reported that the striae began to appear at average gestational age of 23.4 ± 5.3 weeks. Only 7.3% developed before 12 weeks and 6.5 % developed after 28 weeks, while 26.1% and 60.1% developed between 12-20 and 20-28 weeks, respectively. No relationship between onset of striae and severity of striae gravidarum was found. The onset of striae was at 21.9 ± 4.9 , 24.2 ± 4.7 , 23.4 ± 5.4 and 21.7 ± 7.0 weeks of gestation in the group of very mild, mild, moderate and severe striae, respectively.

The most common sites of striae gravidarum was abdomen (47.1%), another sites were thighs or buttocks (41.5%), hips (29.4%) and breasts (26.9%). Amongst 184 women of positive striae group, 68.5 % had striae in more than one site; 26.1 % in 2 sites, 42.4% in more than 2 sites. Some of those had also coexisting symptoms of itching (69.6%) and/or burning sensation (23.4%). The details of sites and severity of striae were presented in Table 2.

From the analysis, age, family income, prepregnancy weight and BMI, skin color, presence of inflammatory acne, water intake and the fetal birth weight were the significant associated factors with presence of striae gravidarum while history of previous striae and family history of mother's and/or sister(s)'s striae tended to have the association but without statistical significance, in contrary to increase body weight or BMI during pregnancy, use of cream, lotion or oil, gestational age at delivery or sex of the newborn. (Table 3)

From multivariable analysis; the factor that have highest influence to occurring of striae gravidarum was acne (p-value = 0.001). Pregnant

women with inflammatory acne had 6.7 times risk of striae gravidarum in comparison to those without acne or with noninflammatory acne (odds ratio 6.7; 95% CI 2.3-19.7). Other significant associated factors were age, BMI, skin color, and fetal birth weight (p-value <0.05). Pregnant women with less than or equal to 25 years of age had 4.8 times risk of occurring than in older age (odds ratio 4.8; 95% CI 2.4-9.5). Overweight women (BMI > 25 kg/m²) had 2.8 times risk of striae gravidarum compared to normal or underweight women (odds ratio 2.8; 95%

CI 1.0-7.5). Lighter skin color (skin color score < 7) had 2.1 times risk of striae gravidarum compared to those with darker skin color (skin color score > 7) (odds ratio 2.1; 95% CI 1.1-3.9). Pregnant women that give birth to the fetus of > 3000 g had 1.9 times risk of striae gravidarum compared to those with fetus < 3000 g (odds ratio 1.9; 95% CI 1.0-3.6). Pregnant women with higher water intake (> 6 cups or 1200 cc/day) tended to have less striae gravidarum than those with lower water intake but without statistical significance. (Table 4)

Table 1. Characteristics of the postpartum mothers (n=272)

Characteristics	Mean ± SD
Age (years)	24.1 ± 6.2
Body weight before pregnancy (Kg)	50.9 ± 8.8
Body weight at time of delivery (Kg)	65.5 ± 10.0
Weight gain during delivery (Kg)	14.7 ± 5.0
BMI before pregnancy (Kg/m ²)	20.6 ± 3.4
BMI at time of delivery (Kg/m ²)	26.6 ± 3.8
Increase of BMI during pregnancy (Kg/m ²)	6.0 ± 2.0
Skin color (score)	6.6 ± 3.2
Water intake (cups/day)	8.3 ± 4.3
Gestational age at birth (weeks)	38.14 ± 1.86
Birthweight (g)	2994 ± 457

BMI = body mass index

Table 2. Presence and severity of striae gravidarum at different sites (n=272)

Characteristics of striae	Site of striae							
	Abdomen		Hips		Breasts		Buttocks or Thighs	
	Number	%	Number	%	Number	%	Number	%
Absence of striae	144	52.9	192	70.6	199	73.1	159	58.5
Presence of striae	128	47.1	80	29.4	73	26.9	113	41.5
Number of line of striae								
score 0 (no striae)	144	52.9	192	70.6	199	73.1	159	58.5
score 1 (< 5 striae)	10	3.7	11	4.0	20	7.4	16	5.9

Characteristics of striae	Site of striae							
	Abdomen		Hips		Breasts		Buttocks or Thighs	
	Number	%	Number	%	Number	%	Number	%
score 2 (5-10 striae)	31	11.4	33	12.1	27	9.9	39	14.3
score 3 (>10 striae)	87	32.0	36	13.3	26	9.6	58	21.3
Color or striae								
score 0 (no erythema)	154	56.6	194	71.3	203	74.6	166	61.0
score 1 (light red or pink)	45	16.6	29	10.7	36	13.3	39	14.3
score 2 (dark red)	37	13.6	35	12.9	21	7.7	47	17.3
score 3 (purple)	36	13.2	14	5.1	12	4.4	20	7.4
Total	272	100.0	272	100.0	272	100.0	272	100.0

Table 3. Association between various factors and striae gravidarum from univariable analysis (n=272)

Characteristics	N	Striae gravidarum				p-value
		Presence		Absence		
		Number	%	Number	%	
Age (years)						<0.0001*
≤ 20	96	80	83.3	16	16.7	
21-25	77	60	77.9	17	22.1	
26-30	53	29	54.7	24	55.3	
> 30	46	15	32.6	31	77.4	
Family income (Baht/month)						0.011*
≤ 10000	144	109	75.7	35	24.3	
10001-15000	76	47	61.8	29	38.2	
15001-20000	30	18	60.0	12	40.0	
>20000	22	10	45.5	12	54.5	
Body weight before pregnancy (Kg)						0.008*
≤ 50	155	94	60.6	61	39.4	
51-60	69	50	72.5	19	27.5	
>60	48	40	83.3	8	16.7	
Weight gain during pregnancy (Kg)						0.819
≤ 11	61.0	42	68.9	19	31.1	
>11	211.0	142	67.3	69	32.7	
BMI before pregnancy (Kg/m²)						0.018*
< 25.0	230.0	149	64.8	81	35.2	

Characteristics	N	Striae gravidarum				p-value
		Presence		Absence		
		Number	%	Number	%	
≥ 25.0	42.0	35	83.3	7	26.7	
Increase of BMI during pregnancy						0.851
≤ 5	88	59	67.0	29	33	
> 5	170	112	65.9	58	44.1	
Striae before pregnancy						0.200
Absence	158	102	64.6	56	35.4	
Presence	114	82	71.9	32	28.1	
Family history of striae						0.137
Absence	107	68	63.6	39	36.4	
Presence	148	107	72.3	47	17.7	
Skin color (score)						0.026*
≤ 7	168	122	72.6	46	27.4	
> 7	104	62	59.6	42	40.4	
Acne						<0.0001*
No acne	147	89	60.5	58	39.5	
noninflame acne	67	42	62.7	25	37.3	
inflame acne	58	53	91.4	5	8.6	
Use of Lotion, cream, or oil						0.881
Not use	82	56	68.3	26	31.7	
Use	190	128	67.4	62	32.6	
start before pregnancy	36	25	69.4	11	30.6	
start at gestational age ≤ 16 weeks	105	69	65.7	36	34.3	
start at gestational age > 16-20 weeks	31	18	58.1	13	41.9	
start at gestational age > 20 weeks	17	15	88.2	2	11.8	
Water intake (cups/day)						0.041*
< 6	75	57	76.0	18	24	
6-8	109	76	69.7	33	30.3	
>8	88	51	58.0	37	42	
Gestational age at birth (weeks)						0.613
< 37	48	34	70.8	14	29.2	
37 – 40	197	130	66.0	67	34	
> 40	27	20	74.1	7	25.9	
Sex of the new born						0.969
Male	151	102	67.5	49	32.5	
Female	121	82	67.8	39	32.2	

Characteristics	N	Striae gravidarum				p-value
		Presence		Absence		
		Number	%	Number	%	
Neonatal birthweight (g)						
≤ 3000	134	81	60.4	53	39.6	0.012*
>3000	138	103	74.6	35	25.4	
Total	272	184	67.6	88	32.2	

BMI = body mass index

* statistical significance with p-value < 0.05

Table 4. Association between various factors and presence of striae gravidarum from multivariable analysis (n=272)

Variables (Baseline vs comparing group)	Adjusted* Odds ratio	95% CI	p-value
Age (> 25 vs ≤ 25 years)	4.8	2.4 - 9.5	0.001**
BMI before pregnancy (< 25 vs ≥ 25 kg/m ²)	2.8	1.0 - 7.5	0.044**
Family income (> 12500 vs ≤ 12500 Baht/month)	1.6	0.8 – 3.2	0.175
Striae before pregnancy (absence vs presence)	1.5	0.8 – 2.8	0.223
Skin color (score > 7 vs ≤ 7)	2.1	1.1 – 3.9	0.023**
Acne (no or noninflame acne vs inflame acne)	6.7	2.3 – 19.7	0.001**
Water intake (> 6 vs ≤ 6 cups/day)	1.7	0.9 - 3.3	0.093
Neonatal birthweight (≤ 3000 vs > 3000 g)	1.9	1.0 – 3.6	0.043**

BMI = body mass index

* adjusted for other variables in the table

** statistical significance with p-value < 0.05

Discussion

Striae gravidarum is a common cosmetic problem which encountered during pregnancy. In order to grade the severity of striae gravidarum, two major score systems were reported in the literatures, Atwal's score system⁽⁶⁾ and Davey's score.⁽¹⁰⁾ In Davey's score, the striae were evaluated only by the number of striae from 4 quadrants of abdomen. We used Atwal's score for our study because we believed that it was more accurate since it measured both the number of striae and degree of erythema at four common sites of abdomen, breasts, hips and

thighs or buttocks.

In our study, the total prevalence of striae gravidarum in Thai singleton primiparae was about 67.6%; 9.5% had very mild degree, 33.1% had mild degree, while 16.2 % and 8.8% had moderate and severe degree of striae gravidarum, respectively. The prevalence of striae gravidarum in this study was not quite different from other studies.^(1,3,11) However, it seems to be that the prevalence in Western countries eg. UK (47-52%)^(6,10) or USA (55%)⁽³⁾ were lower than middle East eg. Lebanon (60%)⁽²⁾ and Iran (87.7%).⁽⁸⁾ In Thailand, to our knowledge, ours is

the second study in this topic, the first study from Siriraj Hospital with the report prevalence of about 77%, which was a little higher than 67.6% in our study. These data reflected that one factor that may affect the prevalence of striae gravidarum was race. However, the difference of prevalence in our study and the Siriraj's study⁽⁹⁾ may be from different population groups with another different risk factors.

The average onset of striae gravidarum in this study was 23.4 ± 5.3 weeks, which was similar to 24.6 ± 8.5 weeks in the report of Chang, et al⁽³⁾ and somewhat earlier than 27.6 ± 5.4 weeks in the report of Ghasemit, et al.⁽⁸⁾ This relatively early development of striae gravidarum indicated that mechanical factor alone was not responsible for its development. In previous study, the percentage of striae were reported to develop before 12 week in 10%, between 12-20 weeks in 17%, between 21-28 weeks in 25% and after 28 weeks in 29%.⁽⁶⁾ In our study, the data was somewhat different from most of the cases that 60.1% developed striae between 20-28 weeks, 26.1% developed between 12-20 weeks, only few patients (13.8%) developed striae before 12 weeks or after 28 weeks. However, their onsets did not demonstrate any correlation with severity of striae, which was similar to Atwal's study.⁽⁶⁾

Concerning about the factors which might be associated with the development of striae gravidarum; from multivariable analysis, factors that had highest influence was acne (odds ratio 6.7; 95% CI 2.3-19.7). Poindevin and Sydney⁽⁷⁾ found that acne was significantly associated with breast striae but not another areas. Since acne is a well-accepted sign of excess ketogenic steroid and there is also strong evidence that striae gravidarum is closely related to adrenal cortical hyperactivity.⁽⁷⁾ So it can be concluded that the association between acne and striae gravidarum occurred because both of them were associated with excessive ketogenic steroid from varying degree of adrenal cortical hyperactivity in pregnancy. The increase adrenal cortical function during pregnancy favors the formation of sulphate-free mucopolysaccharide, whose water absorption relaxes the interfibrous cohesive forces, leading to

cleavage or fraying of the collagen fibers which allows easy separation.⁽¹¹⁾

The age was the next significant factors associated with striae gravidarum (odds ratio 4.8; 95% CI 2.4-9.5). Younger women were more likely to develop striae. This finding was similar to the previous studies.^(2,6,9) The explanation for this association is that the connective tissue of young women contained more collagen, especially collagen with less cross-linking. These more fragile connective tissue may be liable to be ruptured or undergone partial tear in response to stretch leading to striae formation.⁽¹²⁻¹³⁾ Moreover, the younger skin had less fibrillin, and this fibrillin loss has been demonstrated in the development of striae.⁽⁵⁾

Higher prepregnancy weight or BMI also had the significant association with striae gravidarum (odds ratio 2.8; 95% CI 1.0-7.5), which was in consistent with other previous reports.^(6,8,9,11) This might be because the abdominal wall of overweight women may already had been stretched to some extent, with the risk for striae from further abdominal stretching during pregnancy. The higher neonatal birthweight was significantly associated with striae gravidarum (odds ratio 1.9; 95% CI 1.0-3.6), which was consistent with many prior studies.^(6,8-10) The size of gestational content, which is mainly fetus seemed to be responsible for the rapid expansion of skin leading to striae gravidarum. However, no association between striae gravidarum and higher increasing weight gain and BMI during pregnancy were demonstrated.

Concerning about the skin color, the studies from western countries usually graded the skin color according to the skin complexity based on how often a person burns, tan when exposed to the sun or more obvious of the pigmentation (linea nigra present) were. They graded the response of tanning into 3 grades (fair, medium, and dark complexity^(6,9)) or sometimes into six grades⁽⁴⁾ of grade I to VI as Fitzpatrick's classification.⁽¹⁴⁾ Poindevin and Sydney⁽⁷⁾ found that 70% of those with medium and fair complexion group developed breast striae whereas only 41% of dark group did so. While

Atwal's study,⁽⁶⁾ which divided the skin types into three groups did not find the association between striae gravidarum and skin color. However, the pregnant women in this study had dark skin in only 2%. Osman's study⁽²⁾ found that the predominant skin type was Fitzpatrick III (41%) and IV (32%), 20% of the women had skin types I/II, and only 8% had skin type V/VI and there was no association between skin color and striae gravidarum. In this study most of the pregnant women were Thai who had yellow skin color which was difficult and unsuitable to grade the skin as above. Hence, we used the color strip from Garnier's cosmetic,⁽¹⁵⁾ which divided the skin color into sixteen levels from lighter to darker color. We could demonstrate more striae in lighter skin group (skin color score ≤ 7) (odds ratio 2.1; 95% CI 1.1-3.9). There is no clear explanation for this factor. It was assumed that in clinical features of striae, it began as reddish purple lesions and later loss pigmentation. It was difficult to detect mild lesion in darker skin complexion. Chang, et al,⁽³⁾ divided skin color into two groups of race, white and non-white, eg. African-American, Hispanic, East Asian, South Asian and others. They also found that non white women had a greater association with striae than white women. We then assume that owing to race, those from western countries had less prevalence of striae gravidarum than those of Asian countries as we have discussed previously. However; in the same race those with lighter skin, or easily tan when exposed to sun had higher prevalence of striae gravidarum.

Water intake is another factor associated with striae gravidarum in previous report.⁽⁹⁾ By univariable analysis we found significant association between lower water intake and striae gravidarum, but after multivariable analysis, only borderline significant association was found, this may be from limited sample size. Higher water intake was believed to soak the skin and improve flexibility and elasticity of the skin. Previous studies^(1,2,5,11) suggested that striae gravidarum clearly relate to change in structures that provide the collagen string of skin with its tensile strength, elasticity, flexibility and reaction force.

The socioeconomic status also had statistical significant association with striae gravidarum in univariable analysis but not in multivariable analysis. This finding is consistent to previous study.⁽⁶⁾ This may be due to the protection have been offered by the better general health of these women. In addition, low socioeconomic women may be more likely to get pregnancy in earlier age,⁽⁶⁾ who had tendency to develop striae gravidarum.

From our study, some factors associated with striae gravidarum problem can be modified to decrease its occurrence. For example, before getting pregnancy, the women should be counseled to maintain the normal BMI, 18.5 – 24.9 kg/m²⁽¹³⁾ consume promoted collagen formation diet. During pregnancy, they should also have adequate water intake and adequate diet. Since pregnancy in earlier age may be associated with social problems,⁽¹³⁾ obstetric complications,⁽¹³⁾ and also striae formation, so they should be avoided.

Although striae gravidarum do not pose a health risk, in our study, there were some itching and burning sensation. These may lead to some psychological impact.^(1,3) Various therapies have been tried in an attempt to prevent or treat the striae gravidarum. Unfortunately, to date, no successful preventative intervention has been found. Using of cosmetics; either cream, lotion or oil was not associated with less striae formation in our study.

In conclusion the prevalence of striae gravidarum was 67.6%. The factors associated with striae gravidarum were inflammatory acne, younger age, higher prepregnancy BMI, higher fetal birthweight and lighter skin color.

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ความชุกและปัจจัยเสี่ยงของภาวะท้องลายในสตรีตั้งครรภ์แรก

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วัตถุประสงค์ : เพื่อหาความชุกของการเกิดท้องลายและศึกษาปัจจัยเสี่ยงที่ทำให้เกิดท้องลายในสตรีตั้งครรภ์เดี่ยวครรภ์แรก

รูปแบบการวิจัย : การศึกษาเชิงพรรณนา

วัสดุและวิธีการ : เก็บข้อมูลจากสตรีหลังคลอดครรภ์แรก จำนวน 272 คน ที่คลอดเมื่ออายุครรภ์มากกว่า 20 สัปดาห์ ที่วิทยาลัยแพทยศาสตร์กรุงเทพมหานครและวชิรพยาบาล โดยการสัมภาษณ์ตามแบบสอบถามซึ่งแบ่งออกเป็น 4 หัวข้อได้แก่ ข้อมูลทั่วไป ข้อมูลการตั้งครรภ์ ข้อมูลที่เกี่ยวกับท้องลาย และข้อมูลการใช้เครื่องสำอางเช่น ครีมหรือโลชั่น หลังจากนั้นจะวิเคราะห์เปรียบเทียบระหว่างผู้ที่มีภาวะท้องลายกับไม่มีภาวะท้องลาย

ผลการวิจัย : หญิงตั้งครรภ์ร้อยละ 67.6 มีภาวะท้องลาย ปัจจัยที่มีความสัมพันธ์กับภาวะท้องลายมากที่สุดจาก multivariable analysis คือ การมีสีผิวอึกเสบระหว่างตั้งครรภ์ เมื่อเทียบกับผู้ที่ไม่สีผิวหรือมีสีผิวที่ไม่อึกเสบ (odds ratio = 6.7, 95% confidence interval [CI] 2.3-19.7; p-value = 0.001) ปัจจัยอื่นๆที่สัมพันธ์กับภาวะท้องลายอย่างมีนัยสำคัญทางคลินิก (p-value<0.05) ได้แก่ อายุ ≤ 25 ปี (odds ratio 4.8; 95% CI 2.4-9.5) ดัชนีมวลกาย ≥ 25 กิโลกรัมต่อตารางเมตร (odds ratio 2.8; 95% CI 1.0-7.5) สีผิวที่อ่อนกว่า (odds ratio 2.1; 95% CI 1.1-3.9) และ น้ำหนักทารกแรกคลอด > 3000 กรัม (odds ratio 1.9; 95% CI 1.0-3.6).

สรุป : ความชุกของภาวะท้องลายที่พบในสตรีตั้งครรภ์แรกครรภ์เดี่ยวร้อยละ 67.6 ปัจจัยที่มีความสัมพันธ์กับภาวะท้องลาย คือ สีผิวอึกเสบ อายุน้อย ดัชนีมวลกายสูง สีผิวที่อ่อนกว่า น้ำหนักทารกแรกคลอดมากกว่า 3000 กรัม