

Assessment of hemorrhoids and anal fissure occurrences in women during pregnancy in Pirmam City/Iraq

تقييم حدوث البواسير و الناسور الشرجي عند النساء أثناء الحمل في مدينة بيرمام/العراق

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الخلاصة

الهدف: تهدف الدراسة الى اجراء عملية تقييم مواصفات التوليد للنساء المصابات بالبواسير و الناسور الشرجي.
المنهجية: أجريت دراسة مقطعية للفترة من 2013/9/1 - 2014/7/30 في مدينة بيرمام في اقليم كردستان/العراق. و قد شملت الدراسة 50 امرأة من المراجعات العيادة الجراحية الخاصة و اللواتي يعانين و اللذين كان يعانون من اعراض و علامات الاصابة بالبواسير و الناسور الشرجي. و قد تم تشخيصهم من خلال الفحص السريري مسبقا. وتم اعداد استماره استبيان لهدف الغرض. و تم استخدام مربع كاي لتحليل النتائج .
النتائج: اظهرت النتائج ان معدل المتوسط و(الانحراف المعياري) لأعمار النساء هو 30.36 (±7.4). و كانت نسبة الاصابة بالبواسير (14%) و الناسور (48%) او كلاهما (38%). و أظهرت النتائج بأن 62% من النساء كانت متعدّدات الولادات. وكان نسبة (84%) منهم لديهم ولادة طبيعية. و كان هنالك دلالة احصائية بين طول فترة الولادة و شدة الصابة بالبواسير و الناسور. و اظهرت النتائج بأنه لم تكن هنالك علاقة ذات دلالة احصائية بين بداية الاصابة بالبواسير و الناسور و شدة مع عدد الولادات او طريقة الولادة.
الاستنتاج: ان البواسير و الناسور الشرجي كانت أكثر شيوعاً لدى النساء المتعدّدات الولادات و اللذين لديهم أكثر من خمسة ولادات و كذلك بين نساء ذات الولادة الطبيعية.
التوصيات: اعطا النصيحة و التنقيف للامهات حول الغذاء المناسب و حركة الامعاء خلال حمل و تحسين الرعاية خلال الولادة و التي قد تقلل البواسير و الناسور الشرجي. الحاجة الى دراسات اخرى و بعينة اكبر و اجراء دراسة من نوع الشاهد و الحالة التي قد تساعد لمعرفة تأثير الحمل على إصابات الشرج.
مفاتيح كلمات: بواسير، ناسور، ولادة، نساء

Abstract

Aim: The aim of this study was assessment of obstetrical characteristics of women with hemorrhoids and anal fissure.

Methods: A cross-sectional study was conducted between 1st September 2013 and 30th July 2014 in Pirmam city in Kurdistan Region of Iraq on 50 women who attend surgical private clinic and complained with signs and symptoms of hemorrhoids and anal fissures and diagnosed by observation and physical examination of the anus. A questionnaire was constructed for the purpose of the study. Chi-square test or Fisher exact test were used for analyzing of the data.

Results: Mean (M±SD) age of women were 30.36 (± 7.4). The rate of hemorrhoids, fissures or both were as following respectively: 14%, 48% and 38%. Sixty two percent of the study sample were multipara. The majority (84%) of the sample had vaginal delivery. There was statistically significant association between prolonged labor with aggravation of hemorrhoids and fissures by pregnancy/delivery but there was no statistically significant association between onset of hemorrhoids or fissures and their aggravation by pregnancy/delivery with parity and mode of delivery.

Conclusions: Hemorrhoids and anal fissures were most common in multipara and grand multipara women and who delivered vaginally. These conditions may aggravated by pregnancy and delivery.

Recommendation: Advising and educating women for appropriate diet and bowel motion during pregnancy and improving care during labor may decrease the hemorrhoids and anal fissures. Further studies with large sample size and case- control study will help to understand the effect of childbearing experience on anal disorders.

Keywords: Fissure in anal, Hemorrhoids, parturition, women

INTRODUCTION

Women frequently describe symptoms of anorectal disease to their gynecologist. These symptoms may coexist with pregnancy or pelvic floor disorders, or may occur independently. The most common symptoms are pain and bleeding with defecation, but may also include itching, drainage and fullness from a mass ¹. Hemorrhoids (varicosities of the

rectal vein) occurs commonly in pregnancy because of pressure on these veins from the bulk of growing uterus ^{2,3}. Hemorrhoids are one of the most common reasons that patients seek consultation from a colon and rectal surgeon. This disease is reported to affect around 10 million Americans per year with a prevalence of 4.4%⁴. An anal fissure is a small break or tears in the skin of the anal canal. It causes severe pain and bleeding with bowel movement ^{4,5}. The data on the epidemiology of this disorder are very rare ⁶. The overall incidence of anal fissures in a retrospective study in US were 1.14 cases per thousand person-years ⁷.

Anal fissures and hemorrhoids are both very common in pregnant women as well as in others including the elderly. Bleeding hemorrhoids in pregnant women may occur during the last few months of pregnancy or even during the strain of labor. Some pregnant women may notice fissures during pregnancy or after labor ⁸.

Pregnancy and vaginal delivery predisposes women to develop hemorrhoids because of hormonal changes and increased intra-abdominal pressure. It has been estimated that 25% to 35% of pregnant women are affected by this condition ^{7,9}. In certain populations, up to 85% of pregnancies are affected by hemorrhoids in the third trimester ^{1,10}.

The objective of the present study was assessment of obstetrical characteristics of women with hemorrhoids and anal fissures such as gravida, para, mode of delivery, multiple gestation in a sample of Kurdish women.

MATERIALS AND METHODS

A cross-sectional study was conducted between 1st September 2013 and 30th July 2014 in Pirmam city in Kurdistan Region of Iraq. Kurdistan region is an autonomous region of Iraq that consists of the three governorates of Erbil, Dohuk and Suleimanya. The study was approved by the Scientific and Ethical Committees of the Nursing College of Hawler Medical University. The study population included 50 women who attend surgeon private clinic (one of researchers) and complained with signs and symptoms of hemorrhoids and anal fissures and diagnosed by observation and physical examination of the anus. The purpose of the study was explained to each participant during personal interview, and an informed verbal consent was obtained. Data were collected through interview with women. A questionnaire was constructed for the purpose of the study. It consisted of four parts: 1) demographic characteristics of study participants, 2) obstetrical information, 3) GI problems (constipation and history of IBS) during last pregnancy and 4) characteristics of current hemorrhoids and fissures.

Data were analyzed using the Statistical Package for Social Science (SPSS), Version 18. Chi-square test or Fisher exact test were used for analyzing of the data. A "P" value of ≤ 0.05 was considered as statistically significant.

RESULTS:

Table 1: Demographic characteristics of the study sample

Variable	M±SD	
Age	30.36 (± 7.4)	
	No.	%
Residency		
- Urban	17	44
- Rural	33	66
Smoking		
- Active smoker	3	6
- Passive smoker	13	26
- Non smoker	34	68

Table 1 indicates that the range of women's age were 18 - 53 with mean (M±SD) age 30.36 (± 7.4). The highest proportion (66%) was resident in rural area. Near two third (68%) were non smoker.

Table 2: Characteristics of hemorrhoids and anal fissures among study sample

Variable	No.	%
Anal disorders		
- Hemorrhoids	7	14
- Anal fissure	24	48
- Both	19	38
Onset of anal disorders		
- Before pregnancy	13	26
- During pregnancy	21	42
- After pregnancy	16	32
Trimester of pregnancy		
- 1st and 2nd trimester	3	14.3
- 3rd trimester	18	85.7
Aggravated by pregnancy or delivery	29	58
Signs and symptoms		
- Pain	49	98
- Bleeding	37	74
- Purities	32	64
- prolapsed	22	44

Table 2 shows the rate of hemorrhoids, fissures or both were as following respectively: 14%, 48% and 38%. The onset of anal diseases were before pregnancy (26%), during pregnancy (42%) or after pregnancy (32%). In 58% of the cases the situation aggravated by pregnancy or delivery. The majority (85.7%) of women who got hemorrhoids or fissures or both during pregnancy, it was in 3rd trimester of pregnancy. Pain (98%), bleeding (74%) and purities (64%) and prolapsed (44%) were most common signs and symptoms of hemorrhoids and fissures among study sample.

Table 3: Obstetrical characteristics of the study sample

Variable	No.	%
Parity		
- nuliparus	2	4
- primipara	8	16
- multipara	31	62
- grandmultipara	9	18
Abortion		
- no abortion	34	68
- 1-3	3	6
- 4-5	1	2
Mode of delivery		
- vaginal delivery	33	66
- CS	8	16
- both	9	18
Place of delivery		
- home	5	10
- hospital	44	88
- both	1	2
Multiple gestation		
- yes	7	14
- no	43	86
Prolonged labor		
- yes	12	24
- no	38	76

Table 3 shows that 62% of the study sample were multipara. Two third of them had no abortion. The majority of the sample had vaginal delivery. Hospital was the setting of delivery of the most of women. More than two third (76%) experienced prolonged labor.

Table 4: Association between onset and aggravation of anal disorders with prolonged labor

Variables	Prolonged labor		P - value
	Yes No.(%)	No No.(%)	
Onset of hemorrhoids/fissures			
- before pregnancy	5(38.5)	8(61.5)	0.256*
- during/after pregnancy	7(18.9)	30(81.1)	
Aggravation by pregnancy/delivery			
- yes	10(34.5)	19(65.5)	0.041
- no	2(9.5)	15(90.5)	

* Fisher exact test was applied.

Table 4 indicate that there was statistically significant association between prolonged labor with aggravation of hemorrhoids and fissures by pregnancy or delivery.

Table 5: Association between onset and aggravation of anal disorders with parity

Variables	Parity				P - value
	Nuliparus No.(%)	Primipara No.(%)	Multipara No.(%)	Grand multipara No.(%)	
Onset of hemorrhoids/ fissures					
- before pregnancy	1(7.7)	3(23.1)	6(46.2)	3(23.1)	0.425*
- during/after pregnancy	1(2.7)	6(16.2)	24(64.9)	6(16.2)	
Aggravation by pregnancy/delivery					
- yes	1(3.4)	5(17.2)	16(55.2)	7(24.1)	0.633*
- no	1(4.8)	4(19)	14(66.7)	2(9.5)	

* Fisher exact test was applied.

Table 5 shows that there was no statistically significant association between onset of hemorrhoids or fissures and their aggravation by pregnancy or delivery with parity.

Table 6: Association between onset and aggravation of anal disorders with mode of delivery

Variables	Mode of delivery			P - value
	Vaginal delivery No.(%)	Cesarean section No.(%)	both No.(%)	
Onset of hemorrhoids/fissures				
- before pregnancy	11(84.6)	2(15.4)	0(0)	0.136*
- during/after pregnancy	22(59.5)	6(16.2)	9(24.3)	
Aggravation by pregnancy/ delivery				
- yes	20(69)	4(13.8)	5(17.2)	0.914*
- no	13(61.9)	4(19)	4(19)	

* Fisher exact test was applied.

Table 6 shows that there was no statistically significant association between onset of hemorrhoids or fissures and their aggravation by pregnancy or delivery with mode of delivery.

DISCUSSION:

Hemorrhoids and anal fissures are common conditions in pregnancy and after birth ¹¹. Common causes of hemorrhoids include vascular engorgement of the pelvis, constipation, straining at stool, and prolonged sitting or standing. Pushing during the 2nd stage labor exacerbates the problem ¹². Compression of the iliac veins and inferior vena cava by the uterus causes increased venous pressure and reduced blood flow in the legs. These alterations contribute to the dependent edema, varicose veins in the legs and vulva, and hemorrhoids that develop in the latter part of term pregnancy ¹³. As the effects of progesterone decrease, hemorrhoids should improve, but for a small number of women hemorrhoids can continue for up to a year after the birth and will often recur and be worse with subsequent pregnancies ¹².

The exact cause of anal fissures is unknown, but many factors appear likely, such as the passage of large, hard stools, inappropriate diet, previous anal surgery, childbirth and laxative abuse ¹⁴.

The results of the present study indicated that women had wide range of age and most of them affected during or after pregnancy. Hemorrhoids most commonly occurring in fourth to sixth decades, hemorrhoids may affect patients of all ages. They may be exacerbated by the hormonal changes of pregnancy, and may or may not resolve postpartum ¹.

In the present study the majority of women who attend the private clinic and complain from signs and symptoms of anal disorder were multipara, had vaginal delivery and affected by hemorrhoids and fissures in 3rd trimester. Many women experience hemorrhoids for the first time during pregnancy, particularly during the last trimester. Most pregnant women develop hemorrhoid symptoms during their third trimester, but can be treated with conservative measures. Childbirth is of initiating factor for anal fissures. The result of the present study almost is supported by results of a study done by Wazir et al on 50 female to find out the correlation of female parity to common perianal conditions, in which 24 patients had anal fissures. Hemorrhoids and fissures were more prevalent in multi and grand multipara patients ¹⁷.

In a prospective observational cohort study to assess incidence of and risk factors for pe/rianal disease in pregnancy, investigators in Lithuania examined 280 pregnant women (44% pregnant for the first time, 56% repeated pregnancies) at a university hospital and

outpatient clinics during the first and third trimesters, immediately after delivery, and 1 month postpartum. In all, 44% of participants developed perianal symptoms; of these women, 93% had hemorrhoids and 6% had hemorrhoids and anal fissures. More than half of the women with hemorrhoids had thrombosed hemorrhoids (a bluish-purple discoloration often accompanied by severe incapacitating pain). The mean weight of newborns was 3545 g. Mean duration of straining or bearing down in labor was 13.4 minutes (range, 3–50 minutes), 20% of women had histories of perianal disease, and most perianal symptoms (61%) developed during the third trimester. Independent risk factors for perianal symptoms included constipation during pregnancy, personal history of perianal disease, newborn birth weight >3800 g, and straining duration >20 minutes during labor¹⁸.

Fifty eight percent of the women in the present study, their situation were aggravated by pregnancy and delivery. Varicosities of the rectal veins occasionally first appear during pregnancy. Hemorrhoids that are already present exacerbated by the changes that occur in the body during pregnancy. More often, pregnancy causes an exacerbation or recurrence of previous hemorrhoids^{2,19}.

There was significant association between prolonged labor and aggravation of hemorrhoids and fissures with pregnancy/delivery. There is an increased incidence of hemorrhoids following a forceps birth, a longer second stage and vaginal births of heavier babies¹¹.

CONCLUSION:

The majority of women who got hemorrhoids or fissures or both during pregnancy, it was in 3rd trimester of pregnancy. there was statistically significant association between prolonged labor with aggravation of hemorrhoids and fissures by pregnancy or delivery.

RECOMMENDATION:

- 1- Advising and educating women for appropriate diet and bowel motion during pregnancy and improving care during labor may decrease the hemorrhoids and anal fissures.
- 2- Further studies with large sample size and case- control study will help to understand the effect of childbearing experience on anal disorders.

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