

Pattern of Specific Dermatoses During Pregnancy

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Abstract

Dermatoses unique to pregnancy are rare but important to recognize because they may be intensely pruritic or painful to the mother and they may pose significant risk to the patient, her fetus or both. Dermatoses of pregnancy usually does not get attention. Both the obstetrician and the patient are more focused on the pregnancy itself. Some dermatoses of pregnancy elevate the risk of adverse fetal events, it is critical to distinguish them from underlying skin conditions that simply present or flare during pregnancy. Early diagnosis and treatment may help to reduce morbidity and mortality to the gravid patient and her fetus and minimize fetal exposure to unnecessary treatments.

This clinical study shows, about 8% pregnant women had specific dermatoses. Maximum 40 (41.6%) patients were in between the age of 25 to 29 years. According to trimester, 60 (62.5%) patients were in 3rd trimester. In case of gravida, maximum 59 (61.5%) patients were primigravida. In this study, pruritic urticarial papules and plaques of pregnancy (PUPPP) was the most common dermatoses during pregnancy.

Key words: pruritic urticarial papules and plaques of pregnancy, pruritic Folliculitis of pregnancy, prurigo gravidarum , papular dermatitis of pregnancy, prurigo of pregnancy (Besnier), herpes gestationis and impetigo herpetiformis.

Introduction

Pregnancy is a special time for a woman. Women experience significant endocrine and metabolic changes during pregnancy which are capable of causing both physiologic and pathologic alteration in skin, nail and

hair. The majority of physiologic skin conditions related to gestation resolve after child birth¹. The specific dermatoses of pregnancy is unique to gestation. There are challenges to diagnosing pregnancy related dermatoses. Most of these dermatoses are poorly characterized and poorly understood. There is significant overlap between their clinical features and only nonspecific laboratory findings may exist to support their diagnosis. Clinicians familiar with the cutaneous manifestations of pregnancy can most effectively treat and counsel patients, guide expectations and avoid unnecessary diagnostic tests and therapies². Awareness of pregnancy related skin changes can facilitate improved care of woman during pregnancy by identifying those skin changes that require further evaluation, effect of pregnancy on preexisting skin diseases, alerting the attending obstetrician any possible complication and adverse outcome on fetus or mother during antenatal, prenatal, postnatal period and possible risk of recurrence in subsequent pregnancies³.

There are three general categories of pregnancy associated skin conditions¹. Physiological skin change in pregnancy² preexisting skin conditions that change during pregnancy³ Pregnancy specific dermatoses⁴. Hormonal changes cause hyperpigmentation in most of the women during pregnancy. The areolae, axillae & genitals are most commonly affected. Melasma (chloasma) may be the most cosmetically troublesome skin condition associated with pregnancy. Vascular change is common in pregnancy which usually resolves in the first few months after pregnancy. Other changes like spider angiomas, varicosities, granuloma gravidarum, nonpitting oedema of face, eyelids and extremities, pyogenic granuloma, vascular instability. e.g facial flushing, pallor, cutis marmorata of the legs and Raynaud's phenomenon. Glandular changes include increase function of eccrine gland resulting in sebaceous gland hyper activity and hypertrophy causes acne. Striae gravidarum occur in up to 90 percent of pregnant woman by third trimester. Striae most commonly appear on abdomen but may appear on breast, thigh and inguinal area. The cause of striae is multifactorial and includes physical factors (e.g actual stretching of the skin) and hormonal factors (e.g effects of adrenocortical steroids, estrogen and relaxin on the skin's elastic fibers⁵.

Amongst skin conditions influenced by pregnancy, certain skin conditions like atopic dermatitis are most likely to

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worsen or appear for first time during pregnancy or post-partum⁶. Eczema has a fluctuating course in most patients and is influenced environmental and internal triggers. However, Pregnancy does seem to have an effect on eczema in most women with condition. Pre-existing eczema may deteriorate at any stage of pregnancy, and a slightly high rate is seen in the second trimester⁷. Psoriasis vulgaris more likely improves with pregnancy but impetigo herpetiformis which is generalized pustular psoriasis is associated with pregnancy⁸. Systemic Lupus erythematosus (SLE) if stable for 3 months prior to conception is well tolerated but if active at conception, 50% will worsen. In Systemic Sclerosis pregnancy is relatively unaffected⁹.

The study was designed to assess the frequency of specific dermatoses during pregnancy. The key rationale for conducting the study was to have a better understanding of these dermatoses.

Materials & Methods

A clinical study was carried out to find out frequency & common variety of specific dermatoses during pregnancy. 96 patients were selected according to inclusion & exclusion criteria in the outpatient department of Gynae and Obs in Shaheed Ziaur Rahman Medical College Hospital, Bogra. The study was carried out from June 2012 to November 2012. An informed consent was taken from each patient before entry in the study.

Data were collected on pre- designed data sheet. A detailed history and clinical examination was done for each patient.

Results

Ninety six pregnant women had been suffering from specific dermatoses. So in this observation, about 8% pregnant women had specific dermatoses. Maximum 40(7.5%) patients were in between the age of 25-29 years followed by 27 (10.8%) patients in 30-34 years, 16 (5.7%) patients in 20-24 years and 13 (8.7%) patients were in between the age of 35-40 years.

Table-1: Distribution of specific dermatoses by age (n=96)

Out of 1210 case 96 patients had specific dermatoses (7.9%)

Age group	Number of patient	%
20-24	16	16.6 %
25-29	40	41.6 %
30-34	27	28.2 %
35-40	13	13.6 %
Total	96	100.0 %

According to trimester, 60 (62.5%) patients were in third trimester followed by 32 (33.33%) patients were in second trimester and 4(4.2%) patients in first trimester.

Table-2: Distribution of specific dermatoses by Trimester (n=96)

Trimester	Name of the disease					
	PG	PUPPP	PG of Besnier	PFP	PD	All disease
1st (0 - 12 week)	0	0	0	4	0	4
	0.0%	0.0%	0.0%	16.0%	0.0%	4.2%
2nd (13 - 28 week)	2	9	3	16	2	32
	11.1%	20.0%	60.0%	64.0%	66.7%	33.3%
3rd (29 - 40 week)	16	36	2	5	1	60
	88.9%	80.0%	40.0%	20.0%	33.3%	62.5%
Total	18	45	5	25	3	96

In case of gravida, maximum 59 (61.5%) patients were primigravida and 37 (38.5%) patients were multigravida.

Table-3: Distribution of specific Dermatoses by Gravida (n=96)

Gravida	Name of the disease					
	PG	PUPPP	PG of Besnier	PFP	PD	All disease
Primigravida	6	34	3	14	2	59
	33.3%	75.6%	60.0%	56.0%	66.7%	61.5%
Multigravida	12	11	2	11	1	37
	66.7%	24.4%	40.0%	44.0%	33.3%	38.5%
Total	18	45	5	25	3	96

In this study, Pruritic Urticarial Papules and Plaques of Pregnancy(PUPPP) was the most common dermatoses. In case of PUPPP, about 45 (46.08%) patients were suffering from PUPPP. According to age distribution in PUPPP 25(55.6%) patients in between the age of 25-29 years followed by 10 (22.2%) in between age of 30-34 years, 6 (13.3%) patients in 20-24 years and 4 (8.9%) patients in between age of 35-40 years. In case of trimester, 36 (80%) patients in third trimester and 9 (20%) in second trimester. According to gravida, maximum 34 (75.6%) patients were primigravida and 11(24.4%) patients were multigravida. In case of Pruritic Folliculitis of Pregnancy (PFP) 25 (26.00%) patients were suffering from this disease and 12 (48%) patients in 25-29 years, 9 (36%) patients in 30-34 years,4(16%) patients in 20-24 years and 16 (64%) patients were in second trimester, 5(20%) patients in third trimester, 4(16%) in first trimester and 14(56%) patients were primigravida ,11(44%) multigravida. In case of Prurigo Gravidarum (Intrahepatic Cholestasis of Pregnancy) about 18 (18.75%) patients were suffering from this disease. In ICP, maximum 8 (44.4%) patients in between the age of 35-40 years followed by 4 (22.2%) in 30-34 years, 4 (22.2%) in 25-29 years, 2 (11.1%) patients in 20-24 years and 16 (88.9%) were in third trimester, 2 (11.1%) patients were in second trimester and 12 (66.7%) patients were multigravida, 6(33.3%) patients were primigravida. In case of Prurigo of Pregnancy (Besnier), 5(5.20%) patients were in this disease and 2 (40%) patients in 20-24 years, 2(40%) in 30-34 years,1(20%) in 25-29 years and 3 (60%) in second trimester, 2(40%) in third trimester and 3 (60%) were primigravida, 2(40%) were multigravida. In case of Papular Dermatitis of Pregnancy (PD) 3 (3.12%)

patients were suffering from this disease and 2(66.7%) in between age of 25-29 years, 1 (33.3%) in 20-24 years and 2(66.7%) in second trimester, 1 (33.3%) in third trimester and 2(66.7%) were primigravida, 1 (33.3%) was multigravida. But in this observation, no case of herpes gestationis and impetigo herpeticiformis was found.

Table-4: Frequency of Specific Dermatomes during pregnancy (n=96)

Name of the disease	Number of patient	Percentage
PUPPP	45	46.08%
PFP	25	26%
ICP	18	18.75%
PP	5	5.20%

Discussion

A total of 96 patients were included in this study according to inclusion & exclusion criteria. The focus of my study was on specific dermatoses during pregnancy and did not address other physiological skin conditions. Among the pregnant woman, 8% were suffering from specific dermatoses, where maximum patients were in between the age of 25-29 years. Study shows, most of the specific dermatoses occurred in the third trimester & the incidence was common in primigravida. These findings are similar of the study done by Ambros CM March on, 20063.

In this study, PUPPP was the most common (46.08%) dermatoses during pregnancy, followed by PFP (26%), ICP (18.75%), PP (5.20%) and PD (3.12%). These findings are mostly similar in accordance with the observations of Kroumpouzou et al⁴ USA10.

Women experience significant endocrine and metabolic changes during pregnancy which are capable of causing both physiologic and pathologic alterations in skin, nail & hair. Rarer and more concerning are the specific dermatoses of pregnancy- pathological skin eruptions unique to gestation. Early diagnosis and treatment may help to reduce morbidity and mortality to the gravid patient and her fetus and minimize fetal exposure to unnecessary treatments. It is a research priority to estimate the percentage of dermatoses specific to pregnancy. The present study will help our physicians as well as our future researchers.

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