

DERMATOLOGICAL DISEASES DURING PREGNANCYPaulina Rose Chaudhary¹, Emy Abi Thomas², Abhilasha Williams³**HOW TO CITE THIS ARTICLE:**

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ABSTRACT: BACKGROUND: Physiological skin changes are common during pregnancy in addition to cutaneous disease specific to pregnancy. Dermatoses specific to pregnancy are important to recognize because they are intensely pruritic or painful to mother and may pose significant risk to patients, her fetus or both. **AIM:** To study the dermatological diseases in pregnancy. **SETTINGS & DESIGN:** Study was undertaken on pregnant women who visited the dermatology OPD of the Christian medical college and Hospital, Ludhiana. **MATERIAL AND METHODS:** Screening for cutaneous disorders was undertaken in two hundred pregnant women attending the dermatology OPD in Christian medical college and hospital. **STATISTICAL ANALYSIS USED:** Was done by using SPSS version. **RESULTS:** Pruritus was present in 61.5% patients. Specific pregnancy dermatoses were seen in 33% and included prurigo gestationis, pruritic urticarial papules and plaques of pregnancy (PUPP) and pruritus gravidarum. Sexually transmitted diseases accounted for 10.5%; condyloma accuminatum was the commonest STD. Commonest dermatological disorder observed was eczema with 10.5% of cases. **CONCLUSION:** Pregnant women are prone to suffer from a wide range of dermatological and sexually transmitted diseases. Some of these are distressing to mother, others may associated with significant fetal risk.

KEYWORDS: Pregnancy, Dermatoses, Pruritus.

INTRODUCTION: Pregnancy is a complex state, and the interactions of multiple factors may result in a number of cutaneous findings that can be separated into physiologic changes, cutaneous alterations that are aggravated or improved during pregnancy, and dermatoses that are specific to pregnancy. The genetic, hormonal, and immunologic changes that take place over the course of a pregnancy are all part responsible for effects on the skin ¹. The endocrine and immune systems are strongly interrelated during pregnancy. Interactions of hormonal factors with the immune system play a significant role in the pathogenesis of skin diseases specific to pregnancy ². The timing of onset of many pregnancy- specific skin diseases may be correlated to hormonal changes that occur during pregnancy and particularly during the third trimester. Physiological skin changes are common during pregnancy in addition to cutaneous disease specific to pregnancy. Dermatoses specific to pregnancy are important to recognize because they may be intensely pruritic or painful to mother and may pose significant risk to patients, her fetus or both.

This study was undertaken to ascertain the incidence of various skin changes in pregnancy and to observe the effect of pregnancy on various preexisting dermatological conditions.

MATERIALS AND METHODS: Study material comprised of 200 pregnant women with skin diseases attending the skin OPD of a private hospital in Ludhiana (Punjab). The study comprised women in all the trimesters of pregnancy who attended the skin OPD with specific skin complaints. A detailed history was elicited with reference to presenting disease and in relation to pregnancy. A detailed

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clinical examination was done to note all physiological and pathological skin changes. Routine investigations like blood, urine and stool were done in all cases and in sexually transmitted diseases VDRL and ELISA for HIV were done.

RESULTS: Pruritus was the commonest symptom accounting for 123 cases (61.5%). Majority belonged to the age group 20-25 years (86 patients) which accounted to 43%.

Primigravida had higher incidence (103 patients), followed by second gravid (67 patients).

Third trimester attendance accounted for 93 cases (46.5%), second trimester for 75 patients (37.5%), 32 patients (16%) presented in 1st trimester.

21 patients (10.5%) suffered from sexually transmitted disease, 12 had genital warts (6%), 5 patients had genital molluscum (2.5%) and 4 patients were seropositive for VDRL.

Disorder specific to pregnancy accounted for 33%.

45 patients (22.5%) had prurigo of pregnancy, 15 (7.5%) patients had pruritic urticarial papules and plaques of pregnancy (PUPP), 6 patients (3%) had pruritus gravidarum.

Commonest dermatological disorder was eczema (10.5%), 15 other diseases accounted for less than 10% of each.

12 patients (6%) presented with furunculosis, 12 patients (6%) had acne vulgaris. Intertrigo (mainly of groin area) was seen in 10 patients (5%). Melasma was noted in 15 patients (7.5%)

Striae distensae was seen in 70% of patients, but was seen as incidental findings in patients who presented with other skin disorders.

DISCUSSION: Pruritus was the commonest symptom seen in 61.5% of the patients. According to V. Shivkumar et al pruritus was the commonest presenting complain for 58.82% of patients.³ Sujata Raj et al reported incidence of pruritus in 7.1% of pregnant women⁴ which is contrary to our study. Pruritus was due to pregnancy specific dermatoses like eczema, urticaria, dermatophytic infection and scabies, emphasizing the need for a careful search for the underlying disorder. Winton et al and Roger et al reported incidence of Pruritus in 17% and 18% respectively of all pregnancies.^{5,6}

Prurigo of Pregnancy was the commonest specific disorder of pregnancy accounting for 22.5% cases. Most patients presented with excoriated lesions suggestive of Prurigo in the upper and lower extremities in second and third trimester.⁷ This finding is consistent with the description of Black et al who state that the onset of these dermatoses is usually around 25 to 30 weeks of gestation.

According to Ram Chander et al Prurigo of Pregnancy was the second most common disorder.⁸ According to V. Shivkumar et al Prurigo of Pregnancy was the commonest specific disorder of pregnancy accounting for 9.4%.³ Most western reports quote a low incidence of around 2%.^{5,6}

The incidence of PUPP was 7.5%. Most of the patients were Primigravida who presented in the third trimester mostly after 28 weeks of gestation. This finding is consistent with other authors that PUPP is seen especially in Primigravida's.^{3,8}

Zenon Brzoza et al found PUPP in 3rd trimester in Primigravida's and in women with multiple gestation with incidence of 2.9 – 16%.⁹ Incidence of Pruritus Gravidarum was 3%. According to Ram Chander et al Pruritus gravidarum was the most frequent dermatoses of pregnancy at 54.2%.⁸ Pruritus Gravidarum have reported to have an incidence of 0.02 – 2.4% worldwide.¹⁰

In the present study patients presented in the second and third trimester with increased levels of serum aminotransferases and bile acids, thus confirming other reports.^{3, 10, 11}

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Incidence of sexually transmitted disease was 10.5% in our study.

Condyloma acuminatum was the commonest sexually transmitted disease, seen in 12 patients (6%), 4 patients were seropositive for VDRL without any symptomatic disease. Genital molluscum contagiosum was seen in 5 patients (2.5%).

The high incidence of sexually transmitted diseases emphasizes the need for routine serological screening of all pregnant women and their partners.

Eczema was seen in 21 patients (10.5%). 3 patients (14.2%) had previous history of eczematous disorder, 18 patients (85.7%) reported for the first time. A high prevalence of atopic eczema was first diagnosed by Vaughan – Jones et al ¹². Patients presented with excoriated lesions over abdomen, upper and lower limbs.¹⁴ Ambros Rudolph et al showed that 80% of patients with atopic eczema experience their first episode during pregnancy.¹⁵

Acne Vulgaris was seen in 6% and was observed mainly in last trimester when the progesterone levels are maximal and is consistent with the observation by Sujata Raj et al.⁴ Melasma was seen in 7.5% of patients. This is similar to other Indian studies where incidence of Melasma was 8-10%.^{3,4} This is very low in comparison to Western literature where incidence of Melasma in white skin is reported between 50 to 70%.^{13,16}

1 patient presented with Herpes Gestationis at 35 weeks of pregnancy. Patient presented with vesiculobullous lesions on abdomen and extremities. Skin biopsy showed basal cell necrosis and subepidermal bullae.¹⁷

Twelve patients presented with Furunculosis (6%). 2 patients presented with Pustular Psoriasis at 3rd trimester. 1 patient had spontaneous normal delivery at 32 weeks. According to Rooks text book of dermatology onset of pustular psoriasis is usually in the last trimester ¹⁸ and disease tends to persist until child is born.

4 patients presented with Varicella at 2nd trimester. One patient with twin pregnancy had intrauterine death of one fetus and presented with leaking PV at 32 weeks of gestation. Other patients did not have any maternal and fetal complications.

2 patients had drug reaction in 1st & 2nd trimester of pregnancy.

This study highlights that pregnant women are prone to suffer from a wide range of dermatological and sexually transmitted diseases apart from the specific dermatoses of pregnancy, while some of these dermatoses are distressing only to mother, others may be associated with significant fetal risks. This study emphasizes the need for meticulous search for dermatological and sexually transmitted diseases.

It's imperative that clinicians be aware of these skin changes to effectively treat and counsel patients, guide expectations and avoid unnecessary diagnostic tests.

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Acute_urticaria_in_20week_pregnant_lady



Exanthematous Drug rash



Herpes_gestationis



Pruritic_urticarial_papules_and_Plaques_of_Pregnancy



Pustular_psoriasis_in_a_32_week_Pregnant_lady

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Manifestation	No. of Patients	Percentage (%)
Prurigo of Pregnancy	45	22.5
Pruritic Urticarial Papules & Plaques of Pregnancy(PUPP)	15	7.5
Pruritus Gravidarum	6	3
STD's 1. Genital Warts	12	6
2. Genital Molluscum	5	2.5
3. Positive VDRL	4	2
Eczema	21	10.5
Dermatophytic Infections	9	4.5
Furunculosis	12	6
Melasma	15	7.5
Acne	12	6
Scabies	10	5
Intertrigo	10	5
Plantar warts	5	2.5
Polymorphic light Eruptions	3	1.5
Varicella	4	2
Drug Reaction	2	1
Urticaria	3	1.5
Alopecia Areata	2	1
Pustular Psoriasis	2	1
Lichen Planus	2	1
Herpes Gestationis	1	0.5

Table 1: Pregnancy specific dermatoses

Age wise category	No. of Patients	Percentage (%)
Less than 20 years	6	3
20 - 25 years	86	43
25 - 30 years	78	39
30 - 35 years	24	12
> 35 years	6	3

Table 2: Age wise distribution

Trimester	No. of Patients	Percentage (%)
First	32	16
Second	75	37.5
Third	93	46.5

Table 3: Trimester wise distribution

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Gravida	No. of Patients	Percentage (%)
Primi	103	51.5
Second	67	33.5
Third	14	7
Fourth	12	6
Fifth	4	2

Table 4: Gravida wise distribution

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