

## Original Research

### Assessment of dermatoses in pregnancy

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#### ABSTRACT:

**Background:** Dermatoses in pregnancy refer to skin conditions that specifically occur or are altered due to pregnancy. The present study was conducted to assess dermatoses in pregnancy. **Materials & Methods:** 560 pregnant women were enrolled. In order to examine the physiological and pathological alterations of the skin and its appendages, a thorough history and dermatological examination were performed in each case. **Results:** In 1st trimester, 2nd trimester and 3rd trimester, pigmentation was seen in 420 patients such as linea nigra in 14, 25 and 81, melasma in 10, 26 and 64 and diffuse pigmentation in 5, 35 and 65. Vascular lesions in 55 such as gingival hyperplasia in 2, 1 and 3, pedal oedema in 1, 6 and 8, varicose veins in 1, 1 and 4, abdominal wall oedema in 1, 3 and 2 and cherry angioma in 2, 3 and 4. Hair involvement in 15 such as hirsutism in 0, 2 and 4 and hair loss in 1, 2 and 6. Connective tissue in 8 such as striae gravidarum in 1, 2 and 3 and acrochordon in 0, 0 and 2 and eccrine in 2 such as miliaria in 0, 1 and 1 respectively. The difference was significant ( $P < 0.05$ ). Pigmentary changes in primigravida in 280 and multigravida in 220 patients. The difference was significant ( $P < 0.05$ ). **Conclusion:** The frequency of physiological skin changes was significantly higher than that of specific dermatoses, highlighting the fact that, in the majority of cases, prenatal skin disorders merely require reassurance. However, careful observation and analysis must be carried out.

**Keywords:** Dermatoses, pregnancy, Vascular

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#### INTRODUCTION

Dermatoses in pregnancy refer to skin conditions that specifically occur or are altered due to pregnancy. These conditions can be classified into two main categories: pregnancy-specific dermatoses and pre-existing or coincidental dermatoses.<sup>1,2</sup> The endocrine, metabolic, and immune systems are all affected during pregnancy, which is known as an endocrine storm. These modifications cause a variety of pathologic and physiological cutaneous changes that could range from typical skin alterations to breakouts that seem to be particularly connected to pregnancy. Additionally, pregnancy may alter how certain dermatological disorders develop.<sup>3,4</sup> Polymorphic Eruption of Pregnancy (PEP) also known as pruritic urticarial papules and plaques of pregnancy (PUPPP). It commonly appears in the third trimester. It presents as itchy, red papules and plaques, often starting in the abdominal striae and spreading to the thighs, buttocks, and arms. It typically resolves

postpartum.<sup>5</sup> Pemphigoid gestationis (PG) is rare autoimmune blistering disorder. It usually begins in the second or third trimester. It presents as itchy, blistering lesions starting around the umbilicus and spreading to the rest of the body. It may recur in subsequent pregnancies and can be associated with premature delivery and small-for-gestational-age infants.<sup>6</sup> Intrahepatic cholestasis of pregnancy (ICP) is a liver disorder causing pruritus (itching) without a rash, often more severe on palms and soles. It typically occurs in the third trimester. It is associated with increased risks of fetal distress, preterm delivery, and stillbirth. Elevated bile acids and liver enzymes are diagnostic markers.<sup>7,8</sup> The present study was conducted to assess dermatoses in pregnancy.

#### MATERIALS & METHODS

The present study was conducted on 560 pregnant women. All were informed regarding the study and their written consent was obtained.

Data such as name, age, etc. was recorded. In order to examine the physiological and pathological alterations of the skin and its appendages, a thorough history and dermatological examination were performed in each case. If necessary, relevant systemic examinations and investigations were carried out to confirm the diagnosis, including liver function tests, Tzanck smears, Gram's stain, and KOH mounts. In each case,

the Venereal Disease Research Laboratory (VDRL) and the Human Immunodeficiency Virus (HIV) enzyme-linked immune sorbent assay were conducted. The outcomes were totaled and examined. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

**RESULTS**

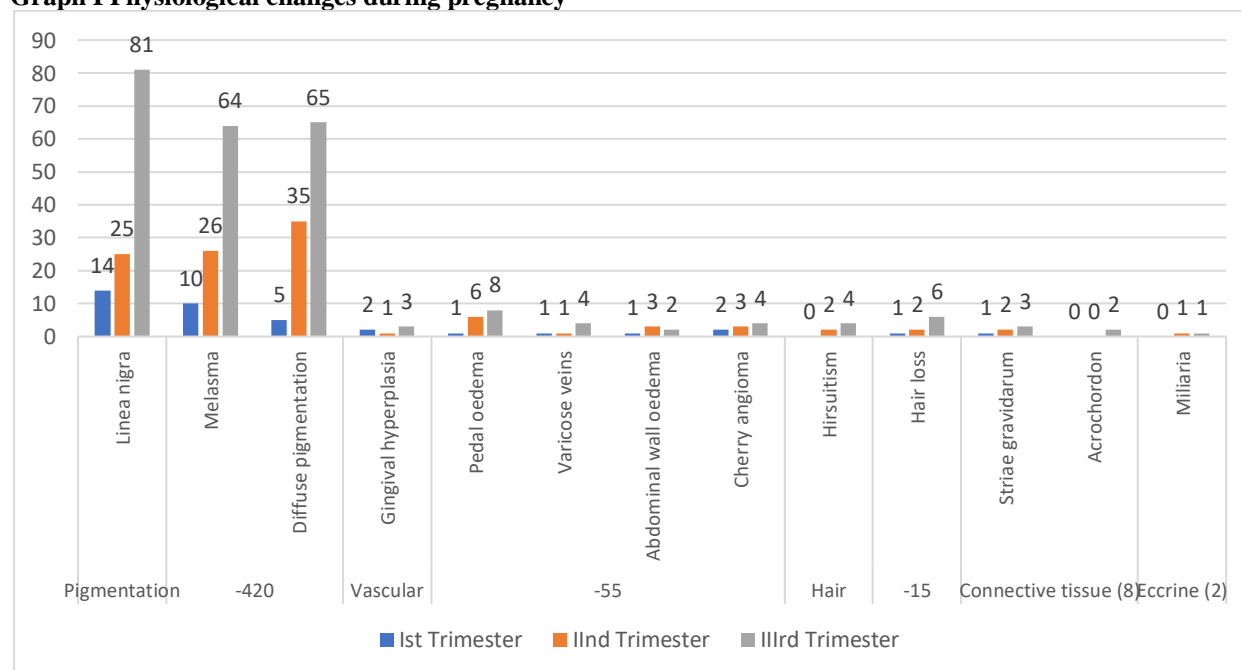
**Table I Physiological changes during pregnancy**

Physiological changes	Variables	Ist Trimester	IInd Trimester	IIIrd Trimester	P value
Pigmentation (420)	Linea nigra	14	25	81	0.05
	Melasma	10	26	64	
	Diffuse pigmentation	5	35	65	
Vascular (55)	Gingival hyperplasia	2	1	3	0.04
	Pedal oedema	1	6	8	
	Varicose veins	1	1	4	
	Abdominal wall oedema	1	3	2	
	Cherry angioma	2	3	4	
Hair (15)	Hirsutism	0	2	4	0.07
	Hair loss	1	2	6	
Connective tissue (8)	Striae gravidarum	1	2	3	0.05
	Acrochordon	0	0	2	
Eccrine (2)	Miliaria	0	1	1	1

Table I shows that in 1st trimester, IIndtrimester and IIIrdtrimester, pigmentation was seen in 420 patients such as linea nigra in 14, 25 and 81, melasma in 10, 26 and 64 and diffuse pigmentation in 5, 35 and 65. Vascular lesions in 55 such as gingival hyperplasia in 2, 1 and 3, pedal oedema in 1, 6 and 8, varicose veins in 1, 1 and 4, abdominal wall oedema in 1, 3 and 2

and cherry angioma in 2, 3 and 4. Hair involvement in 15 such as hirsutism in 0, 2 and 4 and hair loss in 1, 2 and 6. Connective tissue in 8 such as striae gravidarum in 1, 2 and 3 and acrochordon in 0, 0 and 2 and eccrine in 2 such as miliaria in 0, 1 and 1 respectively. The difference was significant (P< 0.05).

**Graph I Physiological changes during pregnancy**



**Table II Assessment of pigmentary changes and gravidity**

Pigmentary changes	Present	Absent	P value
Primigravida	280	35	0.01
Multigravida	220	25	

Table II shows that pigmentary changes in primigravida in 280 and multigravida in 220 patients. The difference was significant ( $P < 0.05$ ).

## DISCUSSION

Specific dermatoses of pregnancy are almost always associated with an eruption of variable severity and pruritus.<sup>9,10</sup> It includes conditions that occur exclusively during pregnancy and results directly from the state of gestation or the products of conception.<sup>11,12</sup> The present study was conducted to assess dermatoses in pregnancy.

We found that in 1st trimester, 2nd trimester and 3rd trimester, pigmentation was seen in 420 patients such as linea nigra in 14, 25 and 81, melasma in 10, 26 and 64 and diffuse pigmentation in 5, 35 and 65. Vascular lesions in 55 such as gingival hyperplasia in 2, 1 and 3, pedal oedema in 1, 6 and 8, varicose veins in 1, 1 and 4, abdominal wall oedema in 1, 3 and 2 and cherry angioma in 2, 3 and 4. Hair involvement in 15 such as hirsutism in 0, 2 and 4 and hair loss in 1, 2 and 6. Connective tissue in 8 such as striae gravidarum in 1, 2 and 3 and acrochordon in 0, 0 and 2 and eccrine in 2 such as miliaria in 0, 1 and 1 respectively. Kannambal et al<sup>13</sup> found out the prevalence of the physiological and pathological skin changes in pregnancy, and to correlate the prevalence of the major cutaneous changes and diseases in relation to different trimesters of pregnancy and with gravidity. Physiological skin changes were seen in 94.8% of cases, with pigmentary changes being more common (90.8%). Specific dermatoses of pregnancy were observed in 14% of cases with pruritus gravidarum being the most common (10.4%). Prevalence of infection was found to 30.8% with fungal infection being the most common (23.8%). Exacerbations of systemic lupus erythematosus and neurofibromatosis was observed. Pigmentary changes, striae gravidarum and specific dermatoses of pregnancy were observed in statistically significant proportion in primigravidas and during third trimester. We observed that pigmentary changes in primigravida in 280 and multigravida in 220 patients. Hassan et al<sup>14</sup> determined the pattern of skin changes associated with pregnancy and to identify the various clinical types of pregnancy specific dermatoses (PSDs). The age of the study population ranged from 17 to 39 years (mean age: 24 years). The study population included 272 (42%) primigravidae and 378 (58%) multigravidae. Physiological skin changes of pregnancy were seen in all patients, out of which linea nigra was the most common change, seen in 520 (80%) cases. Specific dermatoses of pregnancy were seen in 32 (4.9%) cases, which included (in the decreasing order of frequency) prurigo of pregnancy (50% cases), intrahepatic cholestasis of pregnancy (25%).

The shortcoming of the study is small sample size.

## CONCLUSION

Authors found that the frequency of physiological skin changes was significantly higher than that of specific dermatoses, highlighting the fact that, in the majority of cases, prenatal skin disorders merely require reassurance. However, careful observation and analysis must be carried out.

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