

ORIGINAL RESEARCH

Prevalence of various dermatoses in pregnancy at a tertiary care centre

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ABSTRACT

Introduction: Pregnancy is a complicated condition, and the interplay of several elements, including genetic, hormonal, and immunologic alterations, result in a variety of skin changes. Because of the variability in clinical presentation and the absence of clear diagnostic testing, many pregnancy-specific illnesses can be difficult to diagnose and manage. **Materials & Methods:** The study comprised 300 pregnant females who visited the gynaecology outpatient department. Prior to their participation in the trial, the patients were fully informed about the investigation and provided signed informed permission. In all patients, a thorough skin examination was performed to investigate any physiological alterations to the skin and its appendages. **Results:** Prurigo of pregnancy was the most prevalent dermatosis, followed by pruritic folliculitis of pregnancy; herpes gestationis and polymorphic eruption of pregnancy (PUPP) were each found in three patients. There were 84 primigravida and 204 multigravida women patients among the 288 individuals suffering from pregnant prurigo. **Discussion & Conclusion:** Apart from pregnancy-related dermatoses, pregnant women are prone to a wide spectrum of dermatological disorders. This study emphasises the need of conducting a thorough and diligent search for dermatological illnesses rather than doing a superficial examination and dismissing patients with symptoms by attributing them to the natural course of pregnancy.

Keywords: Dermatoses, Pregnancy, Tertiary care centre

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INTRODUCTION

Pregnancy is a complicated condition, and the interplay of several elements, including genetic, hormonal, and immunologic alterations, result in a variety of skin changes. The interactions of hormonal variables with the immune system play an important role in the development of pregnancy-related skin disorders.^{1,2}

Striae gravidarum, hyperpigmentation, and hair, nail, and vascular alterations are all examples of benign skin changes that occur as a result of physiological hormonal changes during pregnancy. The majority of pregnant women have some degree of hyperpigmentation. The most usually afflicted areas include the face, areola, axillae, and genitalia. Melasma (chloasma or pregnancy mask) is the second most prevalent skin condition, affecting nearly 90% of women.³

Pregnancy dermatoses are a separate and varied collection of pruritic skin conditions that may be quite uncomfortable for the mother. Polymorphic eruption

of pregnancy (PEP), formerly known as pruritic urticarial papules and plaques of pregnancy (PUPPP), pemphigoid gestationis (PG), formerly known as herpes gestationis, intrahepatic cholestasis of pregnancy (ICP), and atopic eruption of pregnancy (AEP) are among them. Eczema of pregnancy (EP), prurigo of pregnancy (PP), and pruritic folliculitis (PF) are all symptoms of AEP.^{4,5} PG and ICP are connected with greater foetal problems, whilst PEP and AEP might cause acute pruritus and pain for the mother. Because of the variability in clinical presentation and the absence of clear diagnostic testing, many pregnancy-specific illnesses can be difficult to diagnose and manage.

MATERIALS & METHODS

The current study is a cross-sectional study conducted over a two-year period at the medical college and associated hospital. The research was conducted in the medical college's gynaecology department in collaboration with the dermatology department. The

study's time frame was chosen at random. The duration had no relationship with the length of the pregnant period or the gravity. Prior to the start of the investigation, an ethical clearance certificate was acquired.

The study comprised 300 pregnant females who visited the gynaecology outpatient department. Prior to their participation in the trial, the patients were fully informed about the investigation and provided signed informed permission. Patients who refused to participate in the trial and those who could not be followed up on until birth were omitted from the study.

The included patients' detailed histories were recorded. Demographic information, skin complaints, itching, skin lesions, onset in connection to pregnancy length, jaundice, vaginal discharge, prior or family history of comparable lesions, aggravating variables, and associated medical or skin problems were all included. In all patients, a thorough skin examination was performed to investigate any physiological alterations to the skin and its appendages.

If a specific pregnant dermatosis was evident, the form of skin lesions, distribution, and locations affected were investigated. If necessary, appropriate investigations were conducted to confirm the diagnosis. Liver function tests were performed in all individuals with a history of pruritus associated to particular pregnancy diseases.

The results were documented on a pre-designed pro forma. All of the data were collated, tabulated, and analysed in SPSS utilising percentages of factors like

as age, parity, and gestational age. This descriptive research did not need any statistical tests of significance.

RESULTS

The study included 300 individuals, 96 primigravida women and 204 multigravida women, who had been diagnosed with particular pregnant dermatoses. The mean age of presentation was 29.35 years, with a minimum age of 22 years and a maximum age of 40 years.

Table 1 depicted the various age groups in the current investigation. Patients' parity varied from 0 to 6. The incidence of various dermatoses prevalent during pregnancy was shown in Table 2.

Prurigo of pregnancy was the most prevalent dermatosis, followed by pruritic folliculitis of pregnancy; herpes gestationis and polymorphic eruption of pregnancy (PUPP) were each found in three patients. There were 84 primigravida and 204 multigravida women patients among the 288 individuals suffering from pregnant prurigo.

Excoriations were the most common lesions, followed by nodules and papules. All patients with pregnant prurigo had a positive personal or family history of atopy, and (85%) had high blood IgE levels. Both primigravidas had pruritic folliculitis of pregnancy in the second and third trimesters. The patient with herpes gestationis was a primigravida who appeared in the second trimester. The sole woman with polymorphic eruption of pregnancy (PUPP) was a primigravida who presented in the second trimester.

Table 1: Age distribution of patients included in the study

| Age | Number of patients |
|---------|--------------------|
| 22 – 28 | 90 |
| 29 – 34 | 123 |
| 35 - 40 | 97 |

Table 2: Frequency of specific dermatoses(n = 300)

| Dermatosis | Number of patients |
|------------------------------------|--------------------|
| Prurigo of pregnancy | 288 |
| Pruritic folliculitis of pregnancy | 06 |
| Pemphigoidgestationis | 3 |
| Polymorphic eruption of pregnancy | 3 |
| Total | 300 |

DISCUSSION

Pregnancy causes considerable cutaneous changes, which can range from physiological changes in the skin to frequent skin illnesses that occur concurrently with pregnancy, to eruptions observed solely during pregnancy or the postpartum period. The complex endocrinologic, immunologic, metabolic, and vascular changes associated with pregnancy have a variety of effects on the skin.^{6,7}

Even in the same female, each pregnancy is unique, and impacts from prior pregnancies may have an impact on the present one. While most dermatological alterations associated with pregnancy are tolerated

and offer little morbidity to females, a few of them, such as pemphigoidgestationis and intrahepatic cholestasis of pregnancy, can be deadly. Our study found a wide range of dermatoses in pregnancy in about 85.8% of the participants, while there were only a few identified pregnancy-related dermatoses in the study group.^{7,8}

The most common dermatosis discovered was prurigo of pregnancy (96%), followed by pruritic folliculitis of pregnancy (2%) and herpes gestationis (PUPP) in 1 instance each. The prevalence of prurigo of pregnancy in our study was 96%, which is significantly greater than the 2.5% reported by Masood et al., who also

identified prurigo of pregnancy as the most prevalent specific dermatoses of pregnancy. According to Ahmedi and Powell, polymorphic eruption of pregnancy is the most prevalent. Rashmi has also said that the most prevalent particular dermatoses related with pregnancy are polymorphic eruptions. However, the results of one research may differ from another depending on the environment and design.⁹

Pemphigoid gestationis is an uncommon, self-limiting autoimmune bullous condition that occurs mostly in late pregnancy or the early postpartum era. Circulating complement fixing IgG antibodies bind to BP-180 or bullous pemphigoid antigen 2 in the dermoepidermal junction (DEJ) hemidesmosome, causing tissue injury and blister development. It usually begins with severe itching, which is followed by skin lesions. Initially, erythematous urticarial papules and plaques appear on the abdomen, usually including the umbilical area, and proceed to tight blisters that mirror those seen in bullous pemphigoid.

CONCLUSION

Apart from pregnancy-related dermatoses, pregnant women are prone to a wide spectrum of dermatological disorders. This study emphasises the need of conducting a thorough and diligent search for dermatological illnesses rather than doing a superficial examination and dismissing patients with symptoms by attributing them to the natural course of pregnancy.

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