Pattern of dermatoses of pregnancy in Bangladeshi women

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Abstract

Objective To register the patterns of specific dermatoses of pregnancy in Bangladeshi pregnant women.

Patients and methods A total of 327 pregnant women, aged 20-40 years, were selected by random sampling method. They were screened for specific dermatoses by detailed history and clinical examination.

Results 43 pregnant females had specific dermatoses of pregnancy. Twenty one (48.8%) women had pruritic urticarial papules and plaques of pregnancy, followed by pruritic folliculitis of pregnancy in 11 (25.6%), pruritus gravidarum in 8 (18.6%), prurigo gestations of Besnier in 2 (4.7%) and papular dermatitis in 1 (2.3%) female. The majority of females with dermatoses were found in the 25-30 years age groups.

Conclusion The present study highlights the pattern of specific dermatoses of pregnancy in Bangladesh pregnant women. It was felt that the obstetricians ignore and do not give much attention to pregnancy associated dermatoses causing exhaustive irritation and ill effect of mental disturbance.

Keywords Dermatoses of pregnancy, Bangladesh

Introduction

Pregnancy is a precious time in a woman’s life in which immense immunological, humoral and vascular changes take place. Dermatoses of pregnancy are the inflammatory skin diseases that are specific to women while they are pregnant. Indeed certain dermatoses are noticed almost exclusively during pregnancy or postpartum period prompting to obtain medical care and institutionalized services, such as promotive, preventive and curative approaches.

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Pregnancy is characterized by many physiological skin changes as striae gravidarum, melasma accompanied by hair, nail and vascular changes which are due to hormonal effects. Along with this, the pre-existing skin conditions may either improve or exacerbate in pregnancy due to immunological changes in pregnancy. Though most of these skin dermatoses are benign and resolve in postpartum period, a few can risk fetal life and require antenatal surveillance.

Major dermatoses which occur in pregnancy and some that can be precipitated by pregnancy include pruritic urticarial papules and plaques of pregnancy, impetigo herpetiformis, gestational
pemphigoid (pemphigoid gestations, herpes gestationis), intrahepatic cholestasis of pregnancy, prurigo gestationis, pruritic folliculitis of pregnancy, Spangler’s papular dermatitis of pregnancy, linear IgM dermatosis of pregnancy.

Many women experience minor skin conditions such as pruritus, stretch marks, and melasma during pregnancy, but several serious skin diseases can emerge. Many mothers-to-be will endure some degree of skin discomfort such as itching, rather than take medications. By identifying skin changes, the attending obstetricians are alerted of any possible complication and adverse outcome on fetus or mother during antenatal, prenatal and postnatal periods and the consequent risk of recurrence in subsequent pregnancies.3

The present study was, therefore, undertaken to determine the clinical pattern of specific dermatoses of pregnancy in Bangladesh women, creating awareness to outcome on fetus and counseling to allay anxiety regarding the psychological impact of physiological cutaneous changes during pregnancy.

**Patients and methods**

This was a descriptive study in which data were collected after all women gave consent to participate. Pregnant women who attended the antenatal clinics of hospitals in Dhaka were enrolled in this study. A total of 327 pregnant patients were selected by random sampling method. The ages of pregnant women were between 20-40 years. There was no history of hormonal therapy for conceiving. The associated condition like diabetes, hypertension, hypothyroidism and hyperthyroidism were excluded. Patients were screened by detailed history and physical examination for pregnancy-specific dermatoses. Necessary hematological, biochemical investigations, abdominal ultrasonography and skin biopsy were carried whenever required.

**Results**

Out of 327 pregnant ladies, 43 showed different specific dermatoses of pregnancy (Table 1). Pruritic urticarial papules and plaques of pregnancy (PUPP) was the most common dermatoses encountered in 21 (48.8%) patients, followed by pruritic folliculitis of pregnancy in 11 (25.6%), pruritus gravidarum in 8 (18.6%), prurigo gestationis of Besnier in 2 (4.7%) and papular dermatitis in 1 (2.3%). No case of herpes gestationis was seen in our study.

The frequency of different dermatoses in different age groups of study population is shown in Table 2. The majority of patients with dermatoses were found in the 25-30 years age group. Similarly, the incidence of these diseases according to the trimester of pregnancy is depicted in Table 3. It was noted that the incidence of different dermatoses increased as the pregnancy advanced.

PUPP mostly occurred in the age group of 25-30 years. Majority of these patients were primigravida (85.7%) and in the third trimester of pregnancy. None of the pregnant woman developed PUPP during the first trimester. Intensely pruritic papules were seen within striae distensae and in some patients the eruption

<table>
<thead>
<tr>
<th>Specific dermatosis of pregnancy</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pruritic urticarial papules and plaques of pregnancy</td>
<td>21 (48.8)</td>
</tr>
<tr>
<td>Pruritic folliculitis of pregnancy</td>
<td>11 (25.6)</td>
</tr>
<tr>
<td>Prurito gravidarum</td>
<td>8 (18.6)</td>
</tr>
<tr>
<td>Prurigo gestationis of Besnier</td>
<td>2 (4.7)</td>
</tr>
<tr>
<td>Papular dermatitis</td>
<td>1 (2.3)</td>
</tr>
</tbody>
</table>
Table 2 Distribution of specific dermatoses of pregnancy in different age periods (n=43)

<table>
<thead>
<tr>
<th>Age groups (years)</th>
<th>PG (n=8)</th>
<th>PUPP (n=21)</th>
<th>PG of Besnier (n=2)</th>
<th>PFP (n=11)</th>
<th>PD (n=1)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-25</td>
<td>1 (12.5%)</td>
<td>3 (14.3%)</td>
<td>1 (50.0%)</td>
<td>2 (18.18%)</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>&gt;25-30</td>
<td>1 (12.5%)</td>
<td>11 (52.4%)</td>
<td>-</td>
<td>5 (45.45)</td>
<td>1 (100%)</td>
<td>18</td>
</tr>
<tr>
<td>&gt;30-35</td>
<td>2 (25.0%)</td>
<td>5 (23.8%)</td>
<td>1 (50.0%)</td>
<td>4 (36.36)</td>
<td>-</td>
<td>12</td>
</tr>
<tr>
<td>&gt;35-45</td>
<td>4 (50.0%)</td>
<td>2 (9.5%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
</tr>
</tbody>
</table>

PD = papular dermatitis, PFP = Pruritic folliculitis of pregnancy, PG of Besnier = Prurigo gestationis of Besnier, PG = Prurigo gravidarum, PUPPP = Pruritic urticarial papules and plaques of pregnancy.

Table 3 Distribution of specific dermatoses of pregnancy during different trimesters (n=43).

<table>
<thead>
<tr>
<th>Trimester number</th>
<th>PG (n=8)</th>
<th>PUPP (n=21)</th>
<th>Kinds of Dermatoses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st (0-12 weeks)</td>
<td>-</td>
<td>-</td>
<td>PG of Besnier (n=2)</td>
</tr>
<tr>
<td>2nd (13-28 weeks)</td>
<td>3 (37.5%)</td>
<td>3 (14.3%)</td>
<td>2 (18.2%)</td>
</tr>
<tr>
<td>3rd (29-40 weeks)</td>
<td>5 (62.5%)</td>
<td>18 (85.7%)</td>
<td>3 (27.3%)</td>
</tr>
</tbody>
</table>

PD = papular dermatitis, PFP = Pruritic folliculitis of pregnancy, PG of Besnier = Prurigo gestationis of Besnier, PG = Prurigo gravidarum, PUPPP = Pruritic urticarial papules and plaques of pregnancy.

Discussion

The cutaneous conditions specifically associated with pregnancy have been studied by numerous researchers.4,5,6

PUPP was the most common dermatosis of pregnancy as was noticed earlier by Roger et al.7, Beckett and Goldberg,8 Elling et al.9 and Reed.10 Intensely pruritic papules within striae distensae were found on abdomen and in some patients on the trunk extremities, as well.

The development of pruritic folliculitis was demonstrated in 11 (25.6%) Bangladeshi women. Mildly pruritic to asymptomatic, erythematous follicle-based papules were seen on the back and chest which resembled acne lesions. According to Ambros-Rudolph et al.6 the lesions are pruritic papules and pustules that present in the third trimester, affect the trunk, and may spread to the limbs.

Prurigo gravidarum (intrahepatic cholestasis of pregnancy or ICP) is quoted by some researchers as a rare, but one study11 reported higher prevalence in Asian women in contrast to Caucasian women. However, in Bangladesh pregnant women the prurigo was not as severe as in other countries except in some cases.12,13 In our patients, pruritus of palms and soles was more common and sometimes severe enough on soles of feet that was suggestive of the condition. Family or personal history of gall bladder disease is a recognized association. Hepatitis C seropositivity also predisposes to prurigo gravidarum.14-17

In Bangladeshi pregnant women, prurigo gestationis of Besnier was recorded in 2 (4.7%) females. The affected women showed generalized pruritic papular and nodular lesions, which were distributed on proximal parts of extremities and upper trunk. This condition may resemble prurigo simplex, scabies and arthropod bites. The patients may have excoriations reflecting the intensely pruritic nature of illness.
This type of affection is mostly noticed in young age groups.\textsuperscript{18}

Other dermatoses such as papular dermatitis were rarely seen in pregnant women in Bangladesh. This dermatosis is characterized by erythematous papules surmounted by a small firm central crust that may heal with hyperpigmentation. The eruption usually disappears shortly after delivery.\textsuperscript{3}

In Bangladesh, dermatoses of pregnancy usually do not get proper attention as both the obstetrician and the patient are focused much on the pregnancy. The patients do complain about pruritus, but they are most often advised to tolerate and consider this condition as a part of the usual and general discomfort of pregnancy. They are given only verbal consolation that such uneasy feelings will pass away with delivery. As most common and specific dermatoses of pregnancy seen are benign pruritic dermatoses with no adverse effect on the outcome of pregnancy, there is a tendency of ignoring these dermatological disorders, although these need to be given due attention not only to the comfort of the patient but also to avoid any adverse effect on fetal outcome.

It should be kept in mind that the mother’s health is predictive of the baby’s health and well-being. The attending medical personnel through proper counseling should allay the anxiety of patients regarding the psychological impact of physiological cutaneous changes during pregnancy.

Conclusion

The present study highlights the pattern of specific dermatoses of pregnancy in Bangladeshi pregnant women. It was felt that the obstetricians ignore and do not give much attention to pregnancy associated dermatoses causing exhaustive irritation and mental ill effect in patients. Due importance should be given to get relief from the adverse fetal and maternal outcome second during pregnancy.

References

11. Kenyon AP, Piercy CN, Girling J \textit{et al}. Obstetrics cholestasis, outcome with active


