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Specific Pregnancy Dermatoses in 1430 females from Northern India

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Abstract

Background: The specific dermatoses of pregnancy represent a heterogenous group of ill-defined pruritic skin diseases, unique to pregnancy and post partum period.

Objective: The aim of our study was epidemiological and clinical evaluation of various specific dermatoses of pregnancy.

Methods: All patients visiting our antenatal clinic were screened for various pruritic skin conditions and those with specific pregnancy dermatoses were identified and evaluated.

Results: Out of 1430 patients screened, nearly 5% (70 cases) patients had specific dermatoses of pregnancy. Intra hepatic cholestasis was the commonest specific pregnancy dermatoses.

Conclusion: Specific dermatoses of pregnancy can be diagnosed primarily on the basis of clinical features. All of these, except intra hepatic cholestasis, do not have any effect on normal course of pregnancy. (*J Dermatol Case Rep*. 2011; 5(4): 69-73)

Background

The specific dermatoses of pregnancy is a group of disorders often characterized by severe itching with skin lesions of varying morphology, occurring exclusively during pregnancy and post partum period. It is important to exclude other possible causes of pruritus like scabies, drug eruption, urticaria and many others.

Objective

In this study we tried to evaluate the frequency of various specific dermatoses of pregnancy and delineate their clinical features according to a criteria laid down by Shornick.[1]

Materials and methods

A total of 1430 patients visiting antenatal clinic at Sucheta Kriplani Hospital, New Delhi India, from August 2007 to January 2008, were screened for pruritic skin conditions. Those presenting with pruritus due to skin disorders not related to pregnancy were excluded from the study.

A detailed history and clinical examination was done for each patient.

Complete blood counts, liver and kidney function test, urine and stools routine and microscopic examination and ultrasonography abdomen was done for all the patients. A subset of the patients were also considered for histopathological examination.

All of these patients were followed up according to their scheduled antenatal visits.

The patients were categorized into: ICP, prurigo of pregnancy (PP), pruritic urticarial papules and plaques of pregnancy (PUPPP) and herpes gestationis(HG).[1]

Observations and results

Out of 1430 patients screened, 70 (5%) were found to have pregnancy specific pruritic dermatoses. They were

categorized as follows: ICP in 38 (54.2%), PP in 27 (38.5%) and PUPPP in 5 (7.1%) patients. Herpes gestationis (HG) was not found in any of the patient.

The most frequent dermatoses was ICP. Out of 38 patients, 17 (44.7%) were primigravida and 4 (10.5%) were more than 30 years of age. 5 patients had a history of similar lesions in previous pregnancy. In 76% of patients, the disease started in second trimester and in the rest in third trimester. The pruritus affected all regions of the body, but upper (79%) and lower extremities (84%) were affected in maximum number of females. The morphological pattern showed excoriation marks without any primary lesions.

PP was the second most common disorder. Among them 44.4% were primigravida and 22.2% were more than 30 years of age. Three patients had similar lesions in previous pregnancy. In 7% patients the disease started in second trimester and in the rest in third trimester. The upper (85%) and lower extremities (93%) were the most commonly affected areas. The morphological pattern showed papules with excoriations.

PUPPP was seen in 7% females. Among them 4 were primigravida. It started in third trimester in all of them. The lesions presented as urticated papules and plaques especially over the abdominal striae, and thighs.

HG was not found in any of the patients.

Table 1. Clinical characteristics of different pregnancy dermatoses.

	ICP	PP	PUPPP	HG
Number (%)	38 (54.2%)	27 (38.5%)	5 (7.1%)	0 (0%)
Age >30	4 (10.5%)	6 (22.2%)	1 (20%)	0 (0%)
Primigravida	17 (44.7%)	12 (44.4%)	4 (80%)	0 (0%)
Multigravida	21 (55.3%)	15 (55.6%)	1 (20%)	0 (0%)
H/O atopy	4 (10.5%)	3 (11.1%)	0 (0%)	0 (0%)
Similar complaints in previous pregnancy	5 (13%)	3 (11.1%)	0 (0%)	0 (0%)
Gestation at presentation				
1st trimester	0	0	0	0
2nd trimester	29 (76%)	2 (7%)	1 (20%)	0
3rd trimester	9 (24%)	25 (93%)	4 (80%)	0

Table 2. Morphological features of various pregnancy dermatoses.

	Excoriation	Papules	Urticated papules	Post inflammatory hyperpigmentation
ICP (38)	38 (100%)	0	0	4 (12%)
PP (27)	3 (11%)	27 (100%)	0	3 (11%)
PUPPP (5)	4 (80%)	4 (80%)	5 (100%)	0
HG	0	0	0	0

Few females especially with ICP and PP complained of severe pruritus so as to affect their day to day activities and disturbed sleep. These females were severely distressed because of their skin condition. One patient of ICP had a twin pregnancy. A previous history of abortion and stillbirth was found in 45% of patients with ICP.

Eight patients of ICP showed deranged liver function test. Ultrasonography abdomen was normal in all the patients. Histopathological examination was done in two patients of PUPPP. The findings were compatible with our diagnosis.

All of these patients were treated symptomatically with emollients, calamine and chlorpheniramine. Few patients complaining of excessive itching were given mid potent topical corticosteroids. The patients with deranged liver function tests, not responding to oral antihistamines were given ursodeoxycholic acid, without any relief in their symptoms.

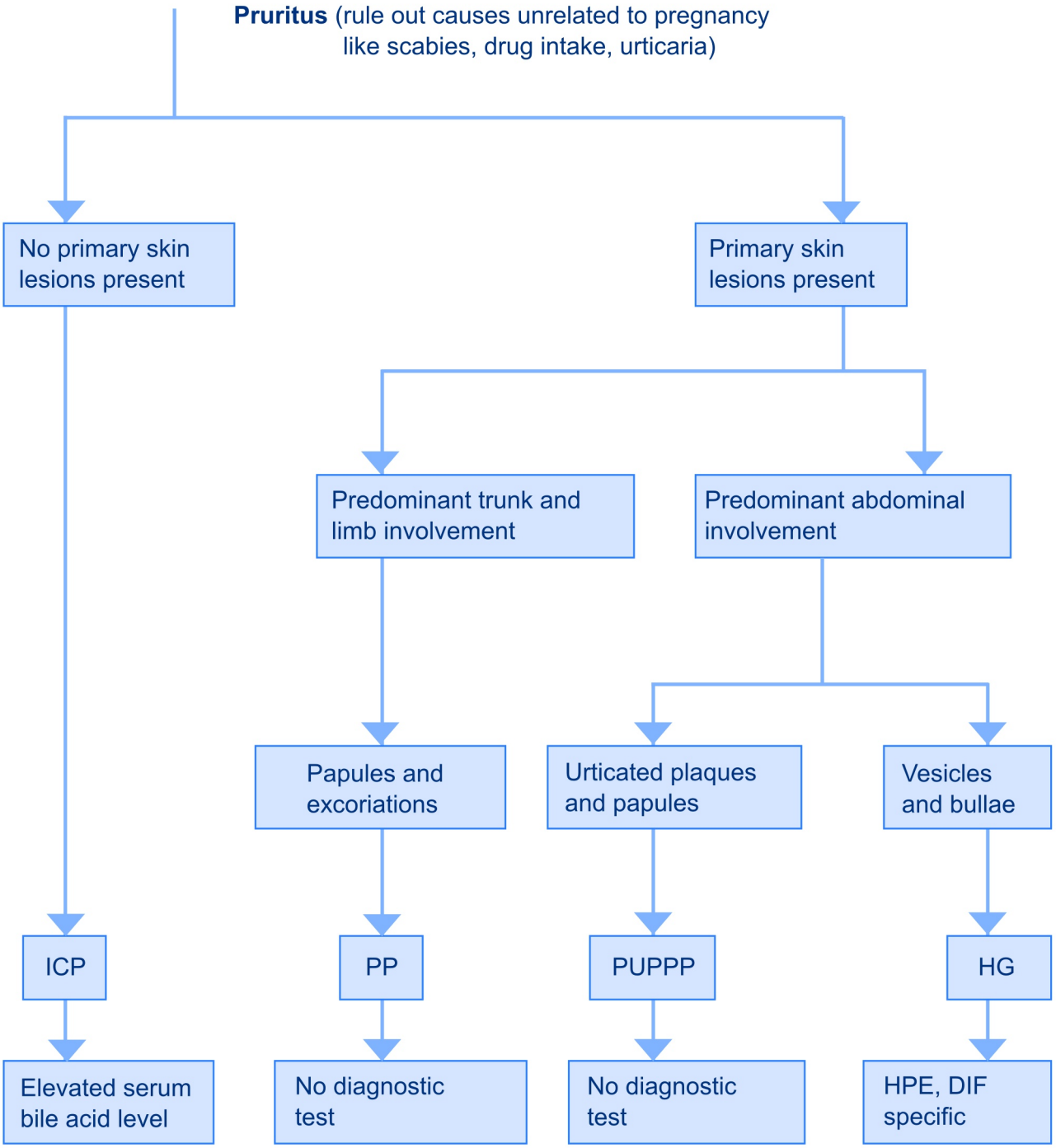

Figure 1

Algorithmic approach based on clinical features for diagnosis of specific dermatoses of pregnancy.

Discussion

For specific pregnancy dermatoses, there is no consensus on various classifications. Currently two main classification schemes are used. In 1983 Holmes and Black proposed a classification which included HG, PUPPP, PP and pruritic folliculitis of pregnancy.[2] Later in 1998 Shornick proposed a simplified scheme, including HG, PUPPP, PP and ICP.[1] For the pruiritic dermatoses of pregnancy, there are no specific diagnostic tests. The histopathological findings are non specific except for HG where direct immunoflourescence has a role. Thus diagnosis of these dermatoses relies primarily on clinical criteria.

According to western literature, ICP occurs in 1 in 100 pregnancies,[3] incidence of PP varies from 1 in 300-450 pregnancies,[4] PUPPP is found in 1 in 130-350 pregnancies,[5] and HG seen in 1 in 10,000 to 15,000 pregnancies.[6] In an Indian study the incidence of specific pregnancy dermatoses was found to be varying from 0.5 to 3.0%, the most common among them being PUPPP followed by ICP.[7] In our study 5% patients had specific dermatoses of pregnancy of which ICP was the most common.

PUPPP is seen especially in primigravida.[8] Corroborating with this observation 80% of our patients with PUPPP were primigravida. ICP and PUPPP are associated with multiple gestations.[8] A case study found 7.89 PUPPP cases out of 200 multiple gestation pregnancies, compared with 1 PUPPP case out of 200 singleton pregnancies.[9] We found only one case of twin pregnancy in a patient of ICP. This could be because of small number of our study subjects. Recurrences of both ICP and PP have been found in subsequent pregnancies.[5] HG often recurs in subsequent pregnancies, appearing earlier in gestation and in more severe forms.[10] Recurrence is uncommon in PUPPP.[8] About half of the patients (55%), of both ICP and PP reported recurrences in their subsequent pregnancies in our study. Recurrences of ICP in subsequent pregnancies is reported in 60% to 70% of cases and recurrences of PP is also found to be common.[5,8]

Elevation of serum bile acids is the most sensitive marker of ICP.[11] Routine liver function tests show raised transaminases in 60% of patients and raised bilirubin concentration in only 25%.[12] In our study 21% patients of ICP had derangement of liver function tests.

PP and PUPPP have no adverse effect on the outcome of pregnancy.[8] Fetal risk in ICP include fetal distress, stillbirth and preterm delivery, which are as a result of placental anoxia.[13] Most authors recommend fetal cardiac monitoring and induction of labor at 38 week of gestation in mild cases and 36 weeks in severe cases of ICP.[14] Cases of small for age babies and preterm deliveries have also been reported in patients of HG.[15] None of our cases reported any grave fetal outcome. Maternal morbidity was limited to pruritus which caused severe distress in a small number of patients of PP and ICP .

Mild ICP responds to emollients, and few severe cases may require cholestyramine and/or ursodeoxycholic acid.[16] Our patients were well managed on emollients and oral antihistamines. Ursodeoxycholic acid was given to all the patients with deranged liver function tests but none of them reported any additional relief in pruritus. PP and PUPPP responds well to emollients. Topical and oral steroids can be used for moderate and severe cases respectively. We had used moderate potency topical steroid (mometasone furoate 0.1%) along with emollients and antihistamines (chlorpheniramine maleate) in our patients with significant relief in their symptoms. Oral steroids were not used in any of our patient.

The clinical criteria for distinguishing various specific pregnancy dermatoses are sometimes insufficient. We believe that immunoflourescence is needed if we suspect HG and serum bile salts and liver function tests are important when ICP is suspected as these two dermatoses are associated with fetal risks. A detailed workup for PP and PUPPP may not be essential as these are benign for both mother and fetus and require only symptomatic treatment. We suggest a clinical algorithm for diagnosis of specific dermatoses of pregnancy (Fig. 1). The study has few pitfalls. The number of patients was not very large. Serum bile acids which is a better marker of ICP could not be done in our patients due to non availability of the test, inspite of our best efforts.

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