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A COMPARATIVE STUDY ON THE PRURITIC DERMATOSES AMONG PREGNANT WOMEN

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Abstract:

Objective: *The aim of this research is the evaluation of pruritic dermatoses in obstetrics during its presentation at Ganga Ram Hospital Lahore.*

Material and Methods: *The research was conducted at Ganga Ram Hospital Lahore, and the duration of this research was from February 2017 to July 2017. The study included 238 subjects fulfilling the criteria of inclusion The presence of PD of pregnancy was evaluated among all the patients. We collected data using pre-designed Pro-forma.*

results: *In our study, the subjects had a mean age of 27.63 ± 05.42 years of obstetrics. Fourteen patients (05.90%) had PD. We found 35.70% (05) patients with PE of pregnancy, 07.10% (01) patients with intrahepatic cholestasis and prurigo of pregnancy, 28.60% (04), 07.10% (01), and 14.30% (02) patients with eczema, pruritic folliculitis of pregnancy, and pemphigoid gestations respectively.*

Conclusion: *PDs are observed among pregnant women commonly. In our area, the PE of pregnancy occurs often followed by eczema.*

Keywords: *Prurigo of Pregnancy (PoP), Dermatoses of Pregnancy (DoP), Intrahepatic Cholestasis of Pregnancy (ICoP), Polymorphic Eruption of Pregnancy (PEoP), Pregnant Women (PW), Pruritic Folliculitis of Pregnancy (PFoP), Pruritic Dermatoses (PD)*

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INTRODUCTION:

During pregnancy, a woman goes through immunological, endocrinological, vascular, and metabolic changes which make pregnant women susceptible to appendages and skin changes [1,2]. These hormonal changes may develop new dermatoses related to pregnancy or increase pre-existing body diseases [1, 2]. The common changes include generalized hyperpigmentation, hormonal alterations resulting in melisma (75% frequency of occurrence), and striaedistensae (90% occurrence frequency) among pregnant women. Oedema, spider nevi, cutis marmorata, varicosities, palmar erythema, redness, and gingival oedema are common vascular alterations. An increase in the eccrine activity while a decrease in apocrine gland happens [3]. Likewise, patients may concern about cosmetic appearance ranging to the reappearance of a particular problem which may cause fetus morbidity or mortality [4,5]. PD of pregnancy cause various heterogeneous pruritic skin eruptions during pregnancy. These eruptions include polymorphic, ICoP, pemphigoidgestationis, and atopic, which happens most commonly. Most of these eruptions of skin are cured post-partum with symptomatic treatment only [6]. To diagnose pregnancy dermatoses, the clinical method must be adopted using criteria of morphology because explicit diagnostic tests are not available for all of them. The availability is observed of lab investigations for ICoP or immunofluorescences for pemphigoidgestationis [7-9]. PD of pregnancy includes ICoP, pemphigoidgestationis, the polymorphic and atopic eruption of pregnancy [10-13]. Not only these dermatoses are unpleasant but also bring a great fetal risk. In past, managing dermatoses was difficult due to imperfect clinical definitions, limited therapeutic facilities, and lack of practical classifications [14]. Samdani found the following frequencies of PD among pregnant females; 38.29%, 25.53%, and 19.14% of PEP, intra-hepatic cholestasis, and pemphigoidgestationis of pregnancy respectively [15]. In another study, Ambrose-Rudolph et al. found eczema in pregnancy, PE, and miscellaneous dermatoses among pregnant women with a percentage of 49.7, 21.60 and 20.60 [10].

MATERIAL AND METHODS:

The research was conducted at Ganga Ram Hospital Lahore, and the duration of this research was from February 2017 to July 2017. Our study included 238 pregnant patients who fulfilled inclusion criteria and appeared at OPD gynaecology for treatment routinely with follow up check-ups. We took verbal consent from all patients. The study collected educational and socio-economic data of patients. Making monthly salary basis, we made 03 sub-groups of socio-economic as less than ten thousand rupees, ten to fifty thousand rupees and more than fifty thousand rupees as low, middle and high respectively. We counted the patient literate who could read and write, otherwise, illiterate. We checked all patients for lesions to satisfy the operational definition. PEoP, pemphigoidgestationis, PoP, ICoP, eczema in pregnancy, and PFoP. We noted the patient having the above-mentioned lesions under PD. The study used pre-designed Pro-forma for collecting data. To enter and analyse data, we used SPSS v10. We presented the variables related to PD as frequency distribution and percentage. In the quantitative data variables such as age (measured in years) are entered as standard deviation and mean. We found PD as the major outcome variable and presented it in the table of the frequency distribution. We looked data for significant variation among different age-groups while stratifying data of education, gravidity, socio-economic and age in relation to resulted variables.

RESULTS:

The age range was from 20 to 40 years, we found 27.63±5.42 as mean age. The percentage of the patients of 20 to 25, 26 to 30, 31 to 35, 36 to 40 years was 38.20% (91), 31.50% (75), 20.20% (48), and 10.10% (24) patients respectively. Our study found 59% (130), 29% (68), and 17% (40) pregnant women among 238 patients belonged to low, middle, and high socioeconomic status respectively. Among 238 pregnant women, prim-gravida and multi-gravida women were found with 48% (114) and 52% (124). Only 5.9% (14) patients were having dermatoses of pregnancy, the rest of 94.10% (224) were not having it. Among fourteen patients of DoP, pemphigoid gestation, PEoP, PoP, ICoP, Pruritic Folliculitis of pregnancy, and Eczema in pregnancy was found among 14% (2), 35% (5), 7% (01), 7.1% (01), and 28% (04) patients respectively. We counted 35.70% (5), 28.6% (4), 14.30% (2), and 21.40% (3) patients among the age group of 20 to 25, 26 to 30, 31 to 35, and 36 to 40 years respectively. We took 14 patients diagnosed with DoP and found 57% (8), 28.70% (4), and 14.30% (2) patients belonged to low, middle, and high socioeconomic status group respectively. Among fourteen patients of DoP, 57.10% (8) and 42.90% (6) patients were found primigravida and multi-gravida respectively. Among fourteen patients of DoP, 57.10% (8) and 42.90% (6) patients were found literate and illiterate respectively.

Table – I: Age distribution (238)

Age (years)	Number (Patients)	%
36 to 40	24	10.10
31 to 35	48	20.20
26 to 30	75	31.50
20 to 25	91	38.20
Mean SD	27.60±05.40	
Range	20 to 40	

Figure – I: Patients' socio-economic status

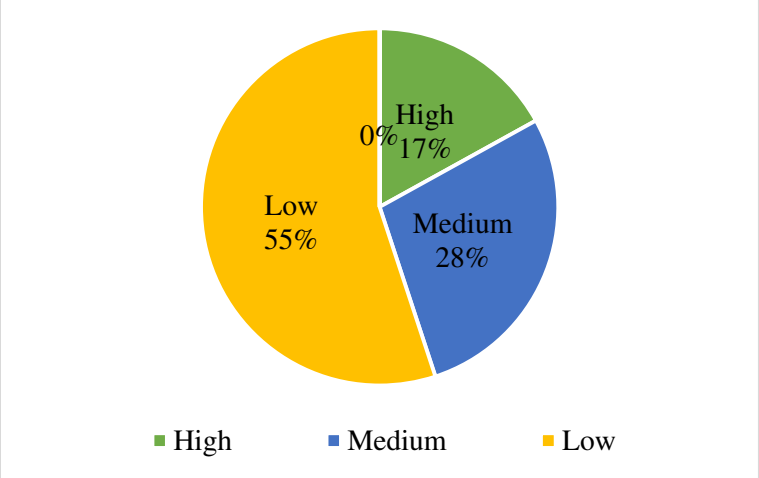

Figure – II: Gravidity distribution of patients

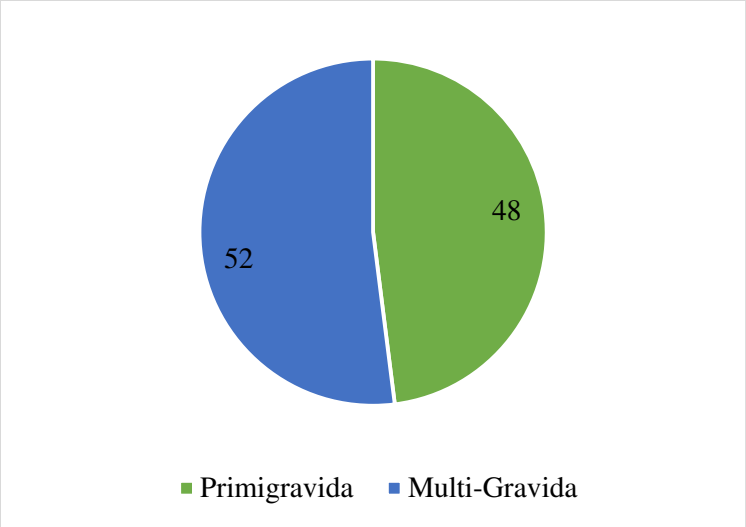

Figure – III: Frequency distribution of patients with Dermatoses

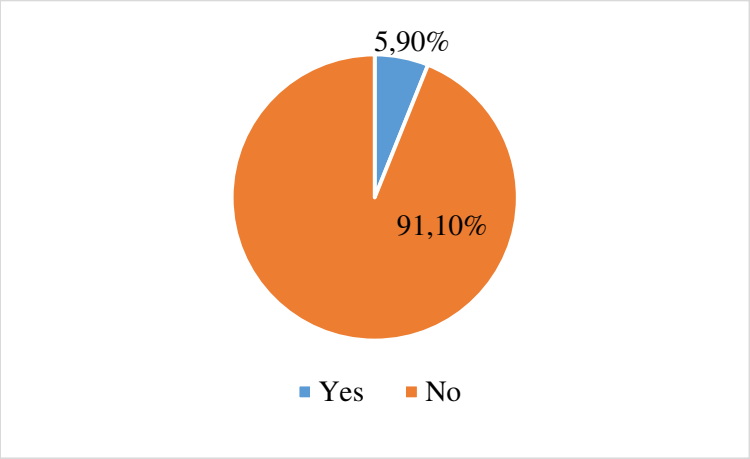

Table – II: Type distribution of Dermatoses (n=14)

	Existence		Non-Existence	
	Number	**Percentage**	**Number**	**Percentage**
Pemphigoid Gestations	2	14.30	12	85.70
PEoP	5	35.70	9	64.30
PoP	1	07.10	13	92.70
ICoP	1	07.10	14	92.70
Eczema	4	28.60	10	71.40
PFoP	1	07.10	13	92.70

Table – III: Distribution of patients of DoP according to Age

Age (Years)	**DoP**	
	Number	**%**
36 to 40	3	21.40
31 to 35	2	14.30
26 to 30	4	28.60
20 to 25	5	35.70

Table – IV: Distribution of Socio-economic group of DoP (n=14)

Age (years)	**Number**	**%**
Low	8	57.0
Medium	4	28.70
High	2	14.30

Table – V: Distribution of patients of DoP in terms of Gravidity

Age (years)	Number	%
Primigravida	8	57.10
Multi-gravida	6	42.90

Table – VI: Distribution of patients of DoP in terms of Educational status

Age (years)	Number	%
Literates	8	57.10
Illiterates	6	42.90

DISCUSSION:

We took 238 subjects and did this prospective case study. According to the results, 5.90% patients (pregnant women) had PD. We observed 35.70% and 28.60% patients with polymorphic eruption and eczema of pregnancy as most commonly. Finding the frequency and patterns of PD among pregnant women have always been the centre of literature. Many studies produced different results. Samdani AJ et al. studied 47 pregnant women in order to understand and establish the pattern and frequency of dermatoses diagnosing PD [15]. The percentages/frequency that he found among 47 PW is 38.2%, 25.5%, 19.14%, 8.5%, 4.2%, and 04.2% patients with PE, ICoP, pemphigoidgestationis, PoP, PFoP and impetigo-herpetiformis respectively. The frequency of PE is in accordance with our results. We also find more comparable results but the study of Samdani AJ et al. shows a higher frequency of 25.50% patients in ICoP whereas our study has 7.10% of frequency for the same type [15]. The study of Samdani AJ et al. shows a great disturbance of results in the age group with the 42.5%, 38.2%, 12.70%, and 6.3% among the age group of 21 to 30 years, 31 to 40 years, more than 20 and less than 40 years respectively. As a greater percentage is found I younger age group, that is why the maximum incidence related to DoP is comparable to our study. The higher frequency of younger patients is due to early age marriages as a cultural trend in our country [15]. The study of Ambros-Rudolph CM et al. finds the frequency of dermatoses among 505 patients as 49.70%, 21.60%, 4.20%, 3.0%, 0.80%, 0.20% and 20.60% with the type of Eczema, PEoP, pemphigoidgestationis, ICoP, PoP, PFoP, and miscellaneous dermatoses respectively. We find a low frequency for ICoP, pemphigoidgestationis, PoP, and FPoP as low whereas the frequency of Eczema and PEoP was higher in both studies [5]. Kumari R et al. finds 22 cases with dermatoses out of 607 PW. Among them, we observed PEoP as most commonly among 14 out of 22 patients followed by 5 patients of PEoP [3]. The percentage of primigravida and multi-gravida was 49.90 and 51.10 respectively which is so close to our study where we have 48.0% and 52% as primigravida and multi-gravida [3]. The above results show that PD greatly changes in different parts of the world. We recorded a 5% frequency but this percentage may be higher than this due to poverty, negligence and fewer healthcare facilities. This is a hospital-based in-depth study, therefore it cannot be openly generalized in terms of results to common people.

CONCLUSION:

During the evaluation of PW, it is must to consider PDoP as it has become common among such women. PEoP followed by Eczema is the most common with higher incidence frequency. On the other hand, ICoP has a low frequency among all. However, large multi-care health centres are to be established to provide better treatment.

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