

LETTER TO THE EDITOR

PHYSIOLOGICAL CHANGES DURING PREMENSTRUAL SYNDROME

Sir,

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Premenstrual syndrome (PMS) one of medicine engines despite more than 65 years of efforts is an increasingly common problem first described in 1931 by Frank, (1) over 150 recurrent symptoms affect the majority of women to a mild degree (2, 3) but it has been estimated that 20% to 40% experience interruption of normal functioning and 5% may be incapacitated in some way (4-8).

Symptoms due to pain, water retention, behavioral changes and skin disorders during premenstrual period (PMS) have been reported (9, 10) in western countries, where PMS is no longer a taboo and lot of publicity such as self help, books (11) and specialized clinics highlight the importance of premenstrual symptoms and helps women to overcome this temporary problem. But in India still people don't know that there is some organic disease and in several cases should seek medical advice.

Five hundred female medical students and staff were included in this study. The age of the female students was between 18-22 year and that of medical staff (teachers) between 25-40 years (comprising only 5% of the total). They were given a questionnaire in which symptoms of PMS are classified on four point grading scale and severity is reported by subjects as mild,

moderate, severe and no symptoms. These symptoms were tabulated in Table I and II. Subjects were explained the correct definition of the syndrome and great emphasis was laid on the fact that only those symptoms should be reported which occurred two weeks before menstruation. The questionnaire obtained were than tabulated and percentage calculated of the presence or absence of symptoms and also their severity.

As yet there are no biological marker that characterize the symptoms, so diagnosis of PMS, at present, is based on history and self assessment questionnaire, such as MOQ'S (12) PMT - Cator disc (13) and premenstrual assessment forms (14). The exact etiology of PMS whether distressing or not remain unknown.

As is evident from Table I headache in (29.4%) may be due to varying degree of cerebral oedema, while somatic symptoms like stomach cramps in (40.4%) and low pelvic pain in (66.4%) could be due to fluid retention associated with irritable colon syndrome (8,15,16,19). The common symptoms of abdominal bloating in (32.6%) may be the result of gut hypotonia and gaseous distension caused by luteal phase of progesterone (17,18). Decreased work efficiency in (86%) might be due to anemia

TABLE I : Percentage of women with pain, water retention, behavioural changes and arousal.

Symptoms	Four point grading scale %			
	Mild	Moderate	Severe	Not present
Pain				
1. Low pelvic pain	29.2	24.4	12.8	33.6
2. Stomach cramps	23.2	18.0	9.2	49.6
3. Headache	19.0	6.2	4.2	70.6
Water retention				
1. Painful breast	14.4	7.2	2.0	76.4
2. Weight gain				
Edema (a) Ankle	18.6	2.8	0.6	78.0
(b) Face	5.6	0.4	0.4	93.6
3. Abdominal bloating	23.2	6.0	3.4	67.4
Behavioural changes				
Increased fatigue	20.8	22.6	19.8	37.8
		Increased	Decreased	No change
Work efficiency		6.8	86.0	7.2
Arousal				
Increased burst of energy and activity	8.8	4.8	0.8	85.6

TABLE II : Percentage of women with skin disorders.

Symptoms	Four point grading scale %			
	Mild	Moderate	Severe	Not present
Acneform eruption	21.6	8.0	2.8	67.6
Dermatitis	10.8	0.8	0.8	87.6
Skin pigmentation	2.4	0.8	0.0	96.8
Greasy skin	12.4	2.4	0.0	85.2

and poor nutritional status of our subjects. Carrie (20) reported that women who experienced poorer general health reported more premenstrual symptom as well as more symptoms during pregnancy. Increased burst of energy and activity in (14.4%) in the premenstrual period could be an emotional symptoms.

Result in Table II shows, that acneform eruption in (32.4%) may be due to aberrations in prostaglandin metabolism (19, 20) premenstrual urticaria (21, 22) might be due to hypersensitivity to some specific substance which appeared in serum during premenstrum. Increased skin pigmentation in (3.2%) before menses could be due to

increased release of melanocyte stimulating hormone (22). Greasy skin could be due to water retention. This work is a

preliminary work and more work is needed to find out the cause of PMS and its treatment.

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