PYROSIS IN PREGNANCY*

by

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Pyrosis or heartburn is a fairly constant association in pregnancy. The term heartburn of pregnancy or pyrosis in pregnancy is deeply rooted to the same extent like vomiting of pragnancy or pyelitis of pregnancy. This means that the changes taking during pregnancy may be in some way responsible for heartburn. The definite cause of pyrosis still eludes answer. Number of workers such as Wallace (1958), Briggs (1968), Williams (1941), Castro (1967), Rucker (1941) etc. have tried to explain mechanism of pyrosis. The present consensus is that pyrosis is due to regurgitation of the acid contents of the stomach into the lower oesophagus due to atony of the cardio-oesophageal sphinctur.

The term heartburn or pyrosis is used for a sensation of warmth, burning heat, etc. vaguely localized behind the sternum or high in the epigastrium. Although usually considered of minor importance, pyrosis may cause great annoyance to the patient. Women with pyrosis in pregnancy often suffer in silence or resort to relatively ineffective household remedies. This is so because the symptom is taken casually by both, the doctor and the patient and is accepted as a part of pregnancy suffering.

The purpose of this study was to evaluate the magnitude and the management of such a common symptom in pregnancy.

Material and Methods

The patients attending the antenatal clinic of the senior author at S.S.G. Hospital, Baroda, from 1.2.1972 to 31.8.1972 were examined and those who volunteered the complain of pyrosis were taken up for detailed study. There were 75 patients with pyrosis. The effect of Aluminiumhydroxide gel and Magnesium trisilicate (Gelusil) in tablet and liquid form was studied. Each tablet (or tea spoonful) of Gelusil contains 500 mg. of Magnesium Trisilicate and 250 mg. of dried Aluminium Hydroxide Gel. Forty patients were given Gelusil tablets and 35 patients were given liquid.

Analysis and Discussion

There were 1050 women registered for confinement and 75 of these complained of pyrosis. This gives an incidence of 7.14 per cent. Pyrosis being a subjective symptom, its incidence would vary with the

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patients, capacity to bear pain. Williams (1941) found 66 per cent incidence of pyrosis in pregnancy. Briggs (1968) reports only 6.37 per cent incidence of pyrosis in pregnancy if no leading questions are asked. Rodway (1935) quoted the incidence of pyrosis in pregnancy as 48 per cent.

Young women in lower parity group suffered more as compared to older women in high parity group. More than 70 per cent of women who suffered from pyrosis were below the age of 25 years and parity upto two only (Table I). The

TABLE I

Pyrosis in Pregnancy—Age and Parity

Age	No. of cases	Parity	No. of cases
Upto 20	18	I	25
21-25	36	II	27
26-30	16	III	12
31-35	3	IV	7
36+	2	V+	4
Total	75		75

duration of complaints was upto 2 weeks in 29 cases and was more than two weeks in 46 cases. These women usually try a few household methods before reporting to the doctor. They have other gastro-intestinal symptoms such as flautlence, dyspepsia, belching, etc. (Table II).

TABLE II

Pyrosis in Pregnancy—Other Symptoms

Dyspepsia	15
Belching	21
Nausea & vomiting	36
Flatulence	18
Anorexia	32
Pyrosis	75

Pyrosis is more common after the first trimester (Table III). Williams (1935) came to similar conclusion. Rucker (1941) however found that pyrosis was more common in the first trimester.

TABLE III

Pyrosis in Pregnancy—Duration of Gestation

1st trimester	18
2nd trimester	48
3rd trimester	9

The food viz. chillies, fried stuff and sweets as well as horizontal posture aggravated the symptoms in 56 per cent of the cases. Milk and vertical posture relieved the symptoms in 44 per cent of the cases. The effect of vertical posture on relief is amply confirmed by other workers (Wallace, Williams, Rucker). The history of pyrosis in previous pregnancy was present in 72 per cent of the parous women. Castro (1967) reports that 77 per cent of his patients had history of pyrosis in previous pregnancy.

Sixty-two patients had relief with one course of Gelusil. Eleven patients needed the second course for relief. One of these patients was given the medicine for three weeks. Two patients were not relieved and one was list to follow-up. Thus, 72 out of 75 patients were relieved of the symptoms by Gelusil which gives a relief rate of 96 per cent. The liquid gave slightly better results than the tablet. It is likely that the liquid can coat the mucous membrane at the lower end of the oesophagus better than the tablets and thus effectively neutralize the acid regurgitation. Not only was the pyrosis relieved but many of the patients felt happy that they were also relieved of the other gastrointestinal symptoms like flatulence, dyspepsia, etc. The relief is of course symptomatic, however this relief means so much to the patient who

is suffering from pyrosis that this relief would be very much welcome. This may be partly because of known antiflatulant properties of Gelusil.

Two patients did not respond to the medicine. One of these patients turned out to be a case of hiatus hernia. Hiatus hernia is a congenital condition and is more likely to be aggravated during the later weeks of pregnancy. As the size of the uterus increases the intestines may herniate above the diaphragm producing symptoms. The pyrosis is relieved after delivery because there is enough space after delivery. Rigler (1935) made X-ray studies of 195 women in the third trimester. The patients were a random selection, with or without gastric symptoms. Hiatus hernia was detected in 12.8 per cent of the cases. After delivery, it could be demonstrated in 3 out of 12 cases. The X-ray should be taken with patient in the supine position. In upright position the hernia tends to get reduced and so may not be demonstrable on X-rays. Though hiatus hernia is a rare condition, it must be considered if the patient has no relief after standard therapy.

Castro (1967) took strips from the lower end of the oesophagus in patients with pyrosis in pregnancy. He found histological evidence of varying degree of oesophagitis in 22/25 cases. Tuttle and Grossman (1958) and Bernstein and Baker (1958) came to the similar conclusion that reflux of the acid gastric contents into the lower end of the oesophagus causes inflammatory changes in the oesophageal mucosa causing pyrosis.

We feel that Aluminiumhydroxide gel and magnesium trisilicate in the form of Gelusil is associated with better relief in pyrosis.

Summary and Conclusions

1. It is a study of 75 cases of pyrosis in pregnancy. The incidence of pyrosis in pregnancy works out as 7.14 per cent.

2. Young women in lower parity group are more affected.

3. Pyrosis is more likely to manifest in the second and the third trimesters.

4. Foods like chillies, fried food, sweets, acid beverages aggravate the pyrosis and milk relieves the symptoms.

5. Horizontal posture aggravates and vertical posture relieves the symptoms.

6. Gelusil in the form of tablet or liquid relieves pyrosis in 96 per cent of our cases.

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