SUMMARY
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CONCLUSIONS
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- There were 100 patients suffering from asthma which has mean age of 31.86 ± 8.74 with age group of 16 years to 45 years.
- Maximum number of subjects were in age group of 26-35 years followed by 36-45 years and 16-25 years. The percentage of married and unmarried patients was 75% and 25% respectively. Educationally, 57% of the patients were having primary to intermediate education followed by graduates (20%) and professionals (1%) whereas 22% of the patients were illiterate. Professionally, sixty nine percent were housewives followed by students (18%), service (8%), and Others (5%). The family income were > Rs 5000 in 40% of patients followed by Rs 1000-3000 in 28%, Rs 3000-5000 in 25% and < Rs 1000 in 7% of patients. The patients came from different religions viz. Hindu (84%), Sikhs (8%), Muslim (7%) and Christian (1%). 65% cases were vegetarians.
- A large number of patients (89%) had both symptoms of asthma and rhinitis whereas only 11% patients have only asthma. Family
history of asthma and rhinitis was present in 33% and 8% cases respectively. The duration of illness ranged from 0 to 38 years. The mean duration of illness was 6.94 ± 6.99.

- Spirometric examination of all patients was done. Eighty patients were having airflow obstruction assessed by pulmonary function testing (PFT). The mild, moderate and severe obstruction was present in 37%, 27% and 16% cases whereas 20% showed normal PFT.

- 34% of patients complained deterioration of asthma linked with their menstrual cycle whereas 66% patients didn’t gave history of menstrual linked asthma. These patient who had history of MLA and who didn’t gave history of MLA were compared dividing into two groups. **Group I (66% patients) who didn’t gave menstrual linked asthma and group II (34% patients) have menstrual linked asthma.**

- The average age of group II, who gave history of premenstrual asthma was 35.71 ± 7.20 (18-45 years) which is significantly (p = 0.036) greater than group I. MLA is seen in later phase of reproductive life.
Summary and Conclusions

- Forty six (69%) patients out of 66 were married in group I whereas 29 (85%) were married in group II. The marital status in both the group is not significant.

- Maximum number of subjects were having primary to intermediate education followed by graduation, illiterate and professionals in both groups.

- Maximum number of subjects were housewives in both the groups, but in group II their number was significantly high. This means in case of MLA group the number of housewives were significantly high. 25.7% were students in group I whereas 2.9% were in group II.

- Most of the patients in both the groups were Hindu i.e. 81.8% and 88.2% in group I and group II respectively.

- Most of the patients in both the group is vegetarians.

- In both the groups maximum subjects have asthma with rhinitis (group I = 87.9%, group II = 91.2%). 12.1% and 8.8% had only asthma in group I and group II respectively.

- The family history of asthma was present in 34.8% and 29.4% in group I and group II respectively whereas family history of
Summary and Conclusions

rhinitis was present in 4.5% and 14.7% in group I and group II respectively.

- Total duration of illness was higher in group II as compared to group I. Average duration of illness was 14.24 (± 7.42) years in group II as compared to 3.18 (± 2.07) years in group I.

- The degree of airway obstruction in case of group II was: - 13% had mild obstruction, 7% had moderate and 10% had severe obstruction as compared to 24%, 20% and 6% having mild, moderate and severe degree of obstruction in group I. These values of airway obstruction are also statistically significant (p<0.05) in group II. Suggesting group II who had MLA the severity of obstruction is higher; hence the severity of disease was high in group II.

- In group I, 1.5%, 60.6%, 27.3%, 10.6% showed severity of cough which is graded as grade 0, 1, 2, 3 respectively whereas in group II 11.8%, 47%, 29.4%, 11.8% showed severity of cough as grade 0, 1, 2, 3 respectively.

- In group I, 18.2%, 60.6%, 19.7%, 1.5% showed severity of sputum production which is graded as grade 0, 1, 2, 3 respectively.
respectively whereas in group II 5.9%, 58.9%, 29.4%, 5.9% showed severity of sputum production as grade 0, 1, 2, 3 respectively.

- In group I, 37.9%, 39.4%, 15.1%, 7.6% showed severity of breathlessness which is graded as grade 0, 1, 2, 3 respectively whereas in group II 8.8%, 52.9%, 35.3%, 2.9% showed severity of breathlessness as grade 0, 1, 2, 3 respectively.

- In group I, 28.8%, 16.7%, 45.4%, 44.1% showed severity of wheeze which is graded as grade 0, 1, 2, 3 respectively whereas in group II 11.8%, 44.1%, 44.1%, 0% showed severity of wheeze as grade 0, 1, 2, 3 respectively.

- In group I, 24.2%, 45.4%, 22.7%, 7.6% showed severity of chest tightness which is graded as grade 0, 1, 2, 3 respectively whereas in group II 8.8%, 47%, 41.1%, 2.9% showed severity of chest tightness grade 0, 1, 2, 3 respectively.

- The extra drug intake in the form of inhaled salbutamol as and when required was higher in group II as compared to group I.

- The number of emergency visit during the 2 month period group II patients was more than group I. Three of patients of group II
were hospitalized. Hence, emergency visit and hospitalization were significantly higher in patients of group II indicating more severe form of disease. A significant association between emergency room visit and hospitalization was also observed in both groups (p<0.05), indicating severity of disease more in group II.

- 10 patients with MLA had deterioration of asthma related to specific season – change of season and winter. 4 patients have increased symptoms in winter and summer. 10 patients have perennial symptoms but aggravated during change of season and dust inhalation.

- Of the 34 patient of MLA, 45% of patients had worsening of symptoms only in premenstrual week, 25% have worsening during menstrual phase and 30% had been in both these weeks.

- 90% of the 34 patients with MLA prescribed their breathlessness to the worse during the premenstrual phase or menstrual phase, while 50% had increased wheezing, 40% induced chest tightness, 39% coughed more and 15% have increased sputum production.
Summary and Conclusions

- 90% of 34 patients complain that they had some form of PMS; the most common was vague abdominal pain (10%), headache (3%), backache (8%), breathlessness (4%), stomach blotting (2%), anxiety (9%), depression (3%), irritability (9%), Inausea (4%).
- Peak expiratory flow recording were done in 20 patients each group after matching age and socio-economic status.
- The PEFR in case of group II (MLA group) was significantly low in week 2 followed by week 1 as compared to week 3. That means PEFR was significantly less in menstrual phase, premenstrual phase as compared to mid cycle week.

CONCLUSIONS:

The study was conducted to know the menstrual linked asthma.
- One hundred female asthmatic (15-45 years age) patients were included in the study.
- Preplanned questionnaire was filled up to know the menstrual linked asthma.
- 34% were having MLA.
Summary and Conclusions

- These patients were divided into two groups. Group I having no MLA and Group II having MLA.
- MLA was 34% (Group II), non MLA was 66% (Group I).
- The severity of disease was significantly high in patients with MLA.
- The severity of airway obstruction was higher in patients with MLA.
- The duration of illness was more in patients with MLA.
- Hospital emergency visit was significantly higher in patients with MLA.
- PEFR was done in 20 patients in each group for the consecutive two months.
- There was significant fall of PEFR in Group II (MLA) in menstrual and premenstrual phase as compared to other days and compared to Group I.