SUMMARY AND CONCLUSION

Asthma is a chronic inflammatory disorder of the airways associated increase in airway hyperresponsiveness that lead to recurrent episodes of wheezing, breathlessness, chest tightness and coughing particularly at hight or in the early morning.

Medication to treat can be classified as controllers or relievers. Controllers are taken daily on a long term basis to keep asthma under clinical control chiefly their anti-inflammatory effects. Relievers are medications used on an as needed basis that act quickly to reverse bronchoconstriction and relieve its symptoms.

The aim of our study to assess the effect of both antileukotriene therapy and mild dose therphylline as on controller therapy add to low dose ICS compared with moderate dose ICS on asthmatic patients who are poorly controlled on low dose ICS.

This prospective study was carried on 45 Egyptian children with mild to moderate persistent asthma and followed up for 3 months treatment in chest hospital in Benha.

There were 28 male and 17 female. Their ages ranged from 5 – 15 years old with a mean age of 7.5 ± 3.1 years.

The studied cases were classified into 3 groups :

Group I: Patients received medium dose ICS (fluticasone) (200 ug/day) (flexotide 50).

Group II: Patients received sustained release theophylline (theophylline SR) (10 – 12 mg/kg/dl) in addition to low dose ICS.

Group III: Patients received montelukast (Idulair 5 mg) (5mg /once daily) in addition to low dose ICS.

All cases were subjected to full history taking, through full clinical examination, CBC, chest x-ray, PEF and blood theophylline level for group II patients.

In the present study the following results were found, hemoglobin levels were low in most asthmatic children.

After 3 months treatment, day time symptoms / week were highly significantly lower in patients of group II and significantly low in group III and there were no significant difference in day time symptoms in group I.

There were decrease in nocturnal symptoms < 2 times / week in group I by 40%, in group II by 66.7 % and in group III by 60%. Also B_2 – agonist use decreased < 2times / week in group I by 40% and in group II and group III by 66.7%.

Hospital admission was lower in group II and in group III than in group I ($P > 0.05$).

In group II there were significant difference in theophylline level between those with good control and partial controlled ($P < 0.05$) and high significant difference between serum level of theophylline between uncontrolled group and good controlled group ($P < 0.001$).

There were significant difference in control level in group II and in group III but no significant difference in level of control in group I.

We conclude that the use of controller therapy in form of antileukotriens or mild dose theophylline add to low dose ICS in patients with mild and moderate persistent asthma were more effective in controlling asthma symptoms than increase the dose of ICS.

Patients received low dose theophylline added to low dose ICS had best asthma control without having any of the adverse effect of theophylline.