Summary and conclusion

Interleukin 13 is a cytokine which is thought to play the most important role in allergic asthma. Some time ago the scientists thought that IL-13 plays its role in bronchial asthma through traditional effects or pathways involving eosinophils and IgE.

To study the role of IL-13 in bronchial asthma we perform our search.

Our study includes forty five asthmatic patients, thirty patients suffering from acute exacerbation while the other fifteen patients were inbetween attack. Our study also includes fifteen healthy controls, all were gathered from Elmahalla Elkubra.

In our search patients and controls were subjected to full history taking, complete clinical examination, skin sensitivity test, complete blood count and differential count, measurement of forced expiratory volume in one second by spirometry, IL-13 and IgE in serum were measured to all studied groups (patients and control) by using an enzyme linked immunosorbent assay (ELISA) technique.

Statistical analysis of the results in our study showed that:

There is no significance difference between the studied groups as regards to sex, total leukocytic count/mm^3, blood haemoglobin.

There is highly significant difference in asthmatic patients when compared to controls as regards total serum IgE levels.

There is highly significant difference in severe asthmatic patients when compared to mild to moderate as regards total serum IgE levels.

There is no signifcant relationship between serum IL-13 levels and age of patients or between serum IL-13 and total leukocytic count, while there is significant correlation between serum IL-13 levels and eosinophilic percentage.

There is highly significant difference in the serum level of IL-13 between patients and controls.

There is positive correlation between serum IL-13 concentration and total serum IgE levels in asthmatic patients.

In conclusion

IL-13 production is increased in bronchial asthma .

In addition IL-13 level reflect the severity of airway inflammation.

Thus IL-13 appears to be an important cytokine which have a role in bronchial asthma.

So anti IL-13 may become a key therapeutic target in the future treatment of allergic disease.