

## SUMMARY and CONCLUSION

Primary atrophic rhinitis is not uncommon in Egypt, it is a chronic inflammation of the nasal mucosa characterised by roomy nasal fossae, viscid secretion which rapidly dries and forms crusts which emit a characteristic foul odour.

The exact aetiology of the disease is not yet well established, some attributed it to hereditary, poor nutrition or endocrinal factors, and others due to chronic infection in maxillary sinus in childhood.

It appears about puberty and more common in females. In this study 30 patients with primary atrophic rhinitis were examined. Patients with atrophic stage of rhinoscleroma were excluded.

Examination of the sinus was done by sinoscope through canine fossa.

For each patient histopathological and bacteriological examinations were done for both nose and maxillary sinus, on

each side, to evaluate the condition of maxillary sinus in case of primary atrophic rhinitis.

Sinoscopically we saw no change of maxillary sinus appearance in early cases of primary atrophic rhinitis while when nasal manifestations were advanced, atrophic changes of maxillary sinus lining mucosa became visible specially around its ostium with impairing its ciliary function.

We could classify histopathological changes in nose into three grades according to duration of affection.

In the first grade, the nasal mucosa is containing more inflammatory cells with diminution of number of mucus secreting glands, while maxillary sinus mucosa appears normal.

In the second grade the nasal mucosa shows patchy squamous metaplasia, on the contrary the sinus mucosa shows compensatory hyperplasia of glands.

Lastly in the third grade when the disease is advanced both nasal and maxillary sinus mucosa show the same atrophic changes which were stratified squamous metaplasia with

keratinization and loss of cilia, also there were loss of goblet cells and mucous glands with atrophy of lamina propria.

Bacteriologically we found no relationship between atrophic changes in nose or sinus and the type of organism isolated from each.

Hence histopathological examination of tissue is recommended for every case diagnosed as atrophic rhinitis to confirm the diagnosis and determine the condition of the maxillary sinus.

X-ray of the maxillary sinuses showed that 80% of the cases were opaque radiologically while the remaining 20% were clear. The dimensions of the maxillary sinuses were found to be reduced in about 53% of the cases. In those cases the lateral wall of the nose as well as the other walls of the sinus were thickened. The outlines of the sinuses were clearly demarcated.

By sinoscopic examination there was no suppuration in almost all the cases.

So, X-ray picture of paranasal sinuses as a diagnosis for chronic sinusitis in a patient with primary atrophic rhinitis is of no actual value as there is already opacity due to thickness of the walls of the sinuses.