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## THE EFFECT OF NASAL OBSTRUCTION ON THE NASAL AND MIDDLE EAR MUCOSA IN EXPERIMENTAL ANIMALS

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### Abstract

*The effect of nasal obstruction on the nasal and middle ear mucosa was studied on 138 albino rats with unilateral and bilateral nasal obstruction for variable periods up to 3 months.*

*Group I was composed of 100 rats which were subjected to unilateral nasal closure. They were divided into 5 equal subgroups and were sacrificed after variable periods so as to study the histological changes of the nasal and ear mucosa.*

*Group II was composed of 38 rats, these being subjected to bilateral nasal closure. These had died within 9 days.*

*The nasal mucosa of the open side showed squamous metaplasia, vascular congestion and ciliary destruction, while in the closed side there was increased secretory activity without epithelial damage.*

*The ear mucosa showed no changes in the side of open nostril while mucosal oedema occurred in the side of closed nostril after 2 weeks.*

*The changes seen in the nasal mucosa of the closed side of the nose explain the beneficial effect of nostril closure in atrophic rhinitis.*

### Introduction

Nasal obstruction was accused by Bluestone et al., (1972) to be involved in the pathogenesis of otitis media by the Toynebee phenomenon but there is no scientific