ABSTRACT

This is a prospective study conducted on 19 patients with rhinoscleroma in its different stages done from April 2011 to June 2013. Nasal biopsies were taken and processed for electron microscopic study. Study of the behavior of plasma cells showed proliferation of endoplasmic reticulum with hyperactivity inside plasma cells. The stages of formation of Mott cell and Russell’s body inside plasma cells were followed supporting the process of intracellular formation of Russell’s body inside plasma cell which supports a local immunological phenomenon.

INTRODUCTION

Objectives:
Study the behavior of plasma cell in rhinoscleroma and recognize the immunological role of plasma cell throughout the course of the disease.

METHODS AND MATERIALS

Prospected study done from April 2011 to June 2013.

This study was conducted on 19 patients with rhinoscleroma in its different stages.

Patients were receiving treatment in the form of ciprofloxacin orally 500 mg twice daily (1,2).

Nasal biopsies were taken and the tissue was processed for electron microscopic study.

RESULTS

Electron microscopic study of the sections demonstrates Mikulicz cells with rhinoscleroma bacilli inside. Typical plasma cells as well as altered forms of these cells are seen. Proliferation of endoplasmic reticulum with hyperactivity inside plasma cells are recorded. The stages of formation of Mott cell and Russell’s body inside plasma cells are followed supporting the process of intracellular formation of Russell’s body inside plasma cell.

CONCLUSIONS

The formation of Mott cell then Russell’s body inside the plasma cell are considered as a sequence of events in the process of immunological response.

REFERENCES


EM of a Miculicz cell containing scleroma bacilli in its vacuoles. A mast cell is seen with its secretory granules. X5600

EM showing a Miculicz cell ; some plasma cells with their nuclei and three Russell’s bodies. X 4500

EM of a group of plasma cells showing small spheres of electron dense material in their dilated cisternae. X 11600

EM of an altered plasma cell showing loss of the nucleus With marked dilatation of the Cisternae which contain homogenous electron dense material. X 10800

EM of a Mott cell showing ballooned cisternae full of electron dense homogenous material and a Russell’s body within a plasma cell. X 4900

EM showing a group of five Russell’s bodies Having different sizes. X 7700

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