Sino-orbital fungal granuloma: A diagnostic dilemma

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Abstract

Fungal granuloma of the sino-orbital region is uncommon. Although imaging modalities like CECT and MRI scans are usually helpful, a pre-operative diagnosis may still be difficult because of subtle overlapping clinical features and a rather indolent disease course. Due to the anatomical relations of the orbit, FNAC is generally difficult and has a high incidence of complications and false-negative results. We report a case of a middle-aged woman, who presented with a painless, progressive swelling below her right eyebrow with difficulty in looking upwards and to the right. Initial diagnoses of orbital dermoid cyst and frontal sinus mucocoele were made clinically. The origin of this lesion was unclear, was it a primary orbital pathology with secondary involvement of the frontal sinus, or vice versa? CECT and USG-guided FNAC aided in investigating, however, a definitive diagnosis of fungal granuloma was only established post-operatively, with the help of histopathological examination.

Key words: Aspergillus, granuloma, sino-orbital region

Introduction

The anatomical topography of the human orbit – surrounded by paranasal sinuses and the cranial cavity, enabling it for locoregional spread of disease processes in that zone – makes the orbit an “interdisciplinary” region. Various pathologies can also produce space-occupying lesions in and around the orbit. Albeit uncommon, fungal granuloma is one of them and has been mainly reported in India, Sudan, Pakistan and sometimes in the United States. The disease is most prevalent in villagers of tropical regions especially among those who are active in farm work. Following the inoculation of fungal organism, the initial site of involvement is usually the paranasal sinuses, with maxillary sinus being the most frequently affected (84.4 %), followed by the sphenoid sinus (14.4 %). Ethmoid and, especially, frontal sinus involvement is rare.

Orbital involvement is usually secondary in cases of fungal granuloma. However, patients can present initially to the ophthalmologist with ocular complaints. We herein report a case of right sided sino-orbital fungal granuloma in a healthy adult.