Ostmann's Fat Pad—Does it Really Matter?

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INTRODUCTION

Chronic otitis media (COM) is a major health problem and is the leading cause of hearing impairment in many nations worldwide. A healthy middle ear depends essentially on a normally functioning eustachian tube (ET). ET paratubal structures, particularly OFP were hypothesized to cause ET dysfunction. The aim of present study was to determine whether there is a relation between the size of OFP and the presence of COMwC using MRI scans.

OBJECTIVES

To compare the size of Ostmann's fat pad (OFP) between healthy ears and ears with chronic otitis media with cholestatoma (COMwC) using magnetic resonance imaging (MRI).

METHOD

Twenty-six patients with unilateral COMwC underwent mastoidectomy. Pre-operative MRI records were reviewed retrospectively. The healthy ears served as the control group. OFP is represented by the maximum diameter of the high intensity area medial to the tensor veli palatini muscle (TVP); M1. A reference diameter was defined from the medial border of OFP reaching the medial border of the medial pterygoid muscle; M2. Values of M1, M2 and the ratio of M1:M2 was compared between the healthy and pathological ear in each patient.

RESULTS

All 26 patients (16 females,10 males) had unilateral cholestatoma. Mean age was 37.6 years (range 19-83). In the healthy (H) ears group, mean M1H was 2.04 ± 0.53mm, mean M2H was 9.57 ± 2.57mm. In the pathological (P) ears group; mean M1P was 2.03 ± 0.55mm, mean M2P was 9.86 ± 2.37mm. A comparison of M1 and M2 values between the healthy and pathological ear groups was not statistically significant (P=.853 and P=.509,respectively).

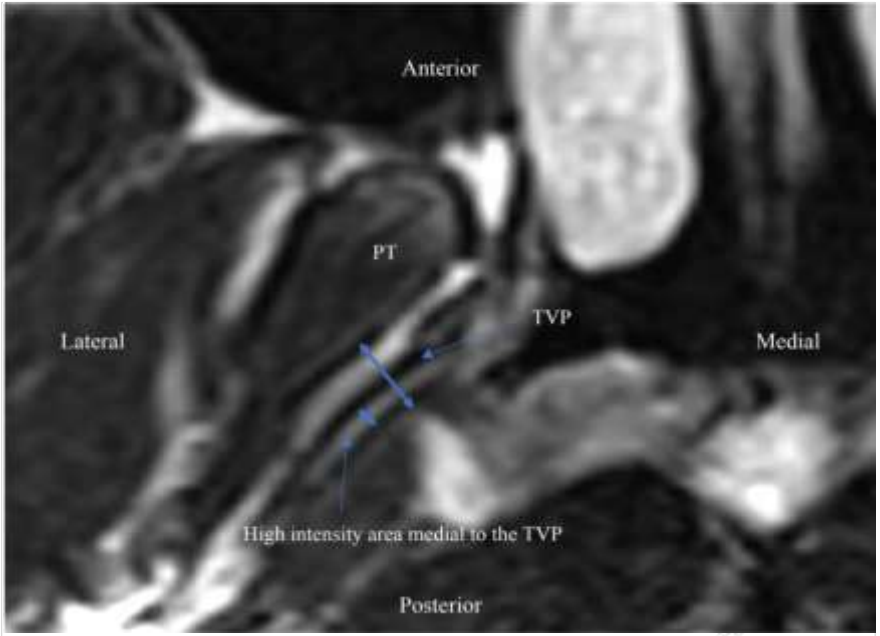

Fig.1. T2-weighted MRI scan demonstrating the measurements (axial view). TVP = tensor veli 259 palatini muscle; PT = pterygoid muscle. Short double arrow = maximum diameter of the high 260 intensity area; OFP (M1). Long double arrow = Diameter of medial border of the high intensity 261 area medial to TVP to the medial border of the medial pterygoid muscle (M2).

CONCLUSIONS

The size of Ostmann's fat pad does not affect the development of chronic otitis media with cholestatoma in adults.