**Prevalence of OM In AL-Nassyria** 



**Ministry of Higher Education and Scientific Research** 

Thi-Qar University, College of Medicine

Department of Surgery(ENT)

**Research about** 

# **OTITIS MEDIA**

Submitted to the council of the collage Of medicine ,Thiqar University, in partial fulfillments of Requirements for the bachelor degree In medicine

Supervised by: Ass.Prof.DR: MushtaqNeamah AL-malki

Submitted by:

HowraSaleem Issa Imran SajadKamil Sajadsaleem Saif Mohammed Yassir Mohammed

# Dedication

Dear teachers, who have given us much By doing so, they exerted great efforts in building the future generation... and before we proceed, I offer the highest verses of thanks, gratitude, appreciation and love to those who carried the holiest message in life... To those who paved the path of science and knowledge for us, our distinguished professors, to all scholars Be a scholar, and if you cannot, then be educated, and if you cannot, love scholars, and if you cannot, do not hate them". We would like to express our gratitude and appreciation to: the respected surgeons branch doctors

## **Aim Of Study**

To calculate the prevalence of Otitis Media in AL-Nassyria in AL-habuobi hospital during January, February ,September and October

#### Abstract

Otitis media (OM) or inflammation of the middle ear (comprising the middle ear cavity and ossicles) is an umbrella term that encapsulates acute OM (AOM), OM with effusion (OME; 'glue ear') and chronic suppurative OM (CSOM)<sup>1</sup>

This is A retrospective study aimed to evaluate the prevalence of OM in AL-nassyria , study was done in ENT clinic in AL-HABUOBI teaching hospital in AL-nassyria IRAQ for a period of January , February ,September and October for 2538 patients

Patient age from less than one year ,from one to sixty year, and above sixty years under went OM All patient subjected to ENTExamination

Patients with OM may consult a doctor with one of the following: 1) a newly discharging untreated ear, 2) a persistently discharging initially treated ear, 3) a recurrently discharging ear, 4) a discharging ear with headache, fever, dizziness and other danger signs, or 5) a dry, perforated eardrum with hearing loss. The first two scenarios are best managed at the primary health care level by patiently questioning the child's carer, carefully examining the eardrum, and administering topical antimicrobials for 2 to 4 weeks

#### Introduction

Otitis media (OM) or inflammation of the middle ear (comprising the middle ear cavity and ossicles) is an umbrella term that encapsulates acute OM (AOM), OM with effusion (OME; 'glue ear') and chronic suppurative OM  $(CSOM)^1$ . These conditions are closely related and can overlap. OM is one of the most common diseases in young children. In high-income countries, it is also a leading cause for medical consultation, antibiotic prescription and surgery<sup>2-4</sup>



AOM is characterized by the presence of fluid in the middle ear (that is, middle ear effusion (MEE)) together with signs and symptoms of an acute infection.<sup>5</sup> Many children occasionally have AOM, but a subset of children have recurrent episodes of AOM<sup>5</sup>. Recurrent episodes of AOM cause frequent episodes of acute ear pain, fever and general illness and considerable distress to children and their parents. Suppurative (pus-forming) complications of AOM, including acute mastoiditis, meningitis and brain abscesses, are rare given the high incidence of AOM but potentially serious. These complications pose a threat in low-income countries in particular<sup>6,7</sup>; an estimated 21,000 people die from complications of OM every year<sup>2</sup>. The global prevalence of hearing loss associated with OM is estimated at 30 (range: 0.7–95) per 10,000 individuals<sup>2</sup>. Perforation of the tympanic membrane (eardrum) can occur as a local sequela of AOM or as a complication associated with treatment with ventilation (tympanostomy) tubes.

OME is characterized by the presence of MEE behind an intact tympanic membrane; but, in contrast to AOM, OME is not associated with signs and symptoms of an acute infection<sup>8</sup>. The main symptom of OME is a conductive hearing loss caused by impaired transduction of sound waves in the middle ear due to the presence of MEE. When this hearing loss persists or recurs frequently, it may have a negative impact on language, behaviour and progress at school<sup>9</sup>. OME is very common, with 80% of children having had one or more episode of OME by 10 years of age. OME may occur as new-onset OME after a viral infection<sup>10</sup> or after AOM, when the inflammatory process subsides and MEE persists. In fact, after an AOM

episode, all children have OME for some time<sup>11,12</sup>. OME in itself is a risk factor for AOM, demonstrating the interrelatedness of these conditions.

CSOM is defined as chronic inflammation of the middle ear and mastoid cavity; persistent or recurrent ear discharge through a tympanic membrane perforation or a ventilation tube is the most prominent symptom<sup>13</sup>. CSOM causes a conductive hearing loss and might damage the middle ear ossicles. It also increases the risk for permanent sensorineural hearing loss (hearing loss due to damage to the inner ear) and intracranial complications<sup>13</sup>. The prevalence of this condition varies widely between countries, but it is most common in low-income and middle-income countries<sup>2</sup>.

Since the publication of a landmark review on OM more than a decade ago<sup>14</sup>, important developments worldwide have been made, in particular, regarding the prevention of OM through pneumococcal conjugate vaccination and treatment of OM following new guidelines that focus on accurate diagnosis and the judicious use of antibiotics. These events have modified the epidemiology and clinical picture of OM worldwide. In this Primer, we provide a state-of-the-art review of OM epidemiology, its underlying pathophysiology, diagnosis, impact on children and their families and preventive and treatment options. We also discuss promising future directions of OM research that might guide clinicians and carers to optimize the health and well-being of young children with OM.

#### **Patient And Methods**

A retrospective study was done in ENT clinic in AL-HABUOBI teaching hospital in ALnassyria IRAQ for a period of January , February ,September and October

Patient age from less than one year ,from one to sixty year, and above sixty years under went OM All patient subjected to ENT

Age	No	
group		Percentage
Less	33	1%
than1		
1-15	562	22%
16-30	637	25%
31-45	575	23%
46-60	525	21%
More than 60	206	8%
Total	2538	100%

Table (1) Age distribution in otitis media during four months



gender	Ŧ	no. 💌	percentag
male		1172	46%
female		1366	54%
TOTAL		2538	100%



Table 2: show gender distribution in otitis media during four months

months	No	percentage
January	917	36%
Feberuary	1037	41%
September	401	16%
October	183	7%
TOTAL	2538	100%



Table 3: The changes in number of patients during four months

## **Results:**

In our study most of patient among age 16-30 as shown in Table 1

Table 2:revealed that most of patients in our study were female who had OM but no statistically characteristic difference

Asignificant decline in the patient in October where as there was increase in February as show in table 3

#### Discussion

The prevalence of otitis media would increase in January, February and both are represent 77% but this percentage of otitis media decrease in September and October to 23% this study goose with alrammade and alfallujah general hospital by Raid M.Al Ani.

The prevalence of otitis media would increase 1-60years (91%) and the peak in between 15-30 years (25%) but this percentage of otitis media decrease in extrema age less than 1years (1%) and more than 60years (8%) this study goose with Depatment of Otorhinolaryngology, Damietta Faculty of Medicine, Al-Azhar University, Egypt by <u>Ahmed Ibrahim Zaghloul</u><sup>2</sup> The prevalence of otitis media would same in both gander this study goose with Prevalence of otitis media with effusion among preschool-age children in Erbil governorate by ZhwanMaghdid Aziz Koye\* and ArsalanAwlla Mustafa Shem\*\*

## Conclusion

We are found the percentage of patients with Otitis media in January is 36% (913),February is 41%(1037),September 16%(401) and October 7%(183) from total patient 2538 and according to this result we concluded the number of patient increase with change weather (decrease temperature).

In other classification we found the number of patient male gender 1172 (46%) and female gender 1366(54%) from total patient 2538

In third classification (the age group with number of patient and percentage ) which start from less than one year 33 patient(1%) ,from 1-15 years 562(22%),from 16-30 years 637(25%) ,from 31-45 years 575(23%),from 46-60 years 525(21%) and lastly more than 60 years 206(8%) so according that classificationmore common in young age group

And we found in patient with less than 1 years and more than 60 years is more common in male than female

#### References

1- Bluestone, C. D. in *Evidence-Based Otitis Media* 2nd edn (eds Rosenfeld, R. M. & Bluestone, C. D. ) 121 (BC Decker Inc, 2003).<u>Google Scholar</u>

2-Monasta, L. *et al.* Burden of disease caused by otitis media: systematic review and global estimates. *PLoS ONE***7**, e36226 (2012). **This comprehensive review provides global estimates on the burden of disease caused by OM.**<u>Article CAS PubMed PubMed Central Google Scholar</u>

3-Gulliford, M. *et al.* Selective decrease in consultations and antibiotic prescribing for acute respiratory tract infections in UK primary care up to 2006. *J. Public Health* (*Oxf.*)**31**, 512–520 (2009). <u>Article</u> <u>Google Scholar</u>

4-Cullen, K., Hall, M. &Golosinskiy, A. Ambulatory surgery in the United States, 2006. National health statistics reports, no. 11, revised. *CDC*https://www.cdc.gov/nchs/data/nhsr/nhsr011.pdf (2009).

5-Lieberthal, A. S. *et al*. The diagnosis and management of acute otitis media. *Pediatrics*131, e964–e999 (2013). <u>Article</u> <u>Google Scholar</u>

6-Rosenfeld, R. M. & Kay, D. Natural history of untreated otitis media. *Laryngoscope***113**, 1645–1657 (2003).<u>Article</u> <u>PubMed</u> <u>Google Scholar</u>

7-Thompson, P. L. *et al.* Effect of antibiotics for otitis media on mastoiditis in children: a retrospective cohort study using the United kingdom general practice research database. *Pediatrics*123, 424–430 (2009). <u>Article PubMed Google Scholar</u>

8-Rosenfeld, R. M. *et al.* Clinical practice guideline: otitis media with effusion (update). *Otolaryngol. Head Neck Surg.***154**, S1–S41 (2016).<u>Article</u> <u>PubMed</u> <u>Google Scholar</u>

9-Bennett, K. E., Haggard, M. P., Silva, P. A. & Stewart, I. A. Behaviour and development effects of otitis media with effusions into the teens. *Arch. Dis. Child.*85, 91–95 (2001). <u>Article CAS PubMed PubMed Central Google Scholar</u>

10-Chonmaitree, T. *et al.* Viral upper respiratory tract infection and otitis media complication in young children. *Clin. Infect. Dis.***46**, 815–823 (2008).**This large prospective study reports a clear relationship between viral URTI and AOM and OME in children at the peak age of incidence of OM.<u>Article PubMed PubMed Central Google Scholar</u>** 

11-Alho, O., Oja, H., Koivu, M. &Sorri, M. Risk factors for chronic otitis media with effusion in infancy. Each otitis media episode induces a high but transient risk. *Arch. Otolaryngol. Head Neck Surg.***121**, 839–843 (1995).<u>Article CAS PubMed Google Scholar</u>

12-Claessen, J. Q., Appelman, C. L., Touw-Otten, F. W., Hordijk, G. J. & de Melker, R. A. Persistence of middle ear dysfunction after recurrent acute otitis media. *Clin.Otolaryngol.Allied Sci.***19**, 35–40 (1994).

13-Verhoeff, M., van der Veen, E. L., Rovers, M. M., Sanders, E. A. M. &Schilder, A. G. M. Chronic suppurative otitis media: a review. *Int. J. Pediatr. Otorhinolaryngol.*70, 1–12 (2006).
<u>Article PubMed Google Scholar</u>

14-Rovers, M. M., Schilder, A. G., Zielhuis, G. A. & Rosenfeld, R. M. Otitis media. *Lancet***363**, 465–473 (2004).**This review summarizes the state of knowledge in epidemiology, pathogenesis, diagnosis, treatment and prevention of OM up to 2004.**  التهاب الاذن الوسطى في الناصرية تحت اشراف الدكتور مشتاق نعمة المالكي قام بعمله الطلبة المدرجة اسمائهم ادناه : 1. حوراء سليم سالم 2. عيسى عمران عيسى 3. سجاد كامل ريكان 4. سباد سليم فاخر 5. سيف مجد راضي 6. ياسر مجد كريم

## الخلاصة:

التهاب الأذن الوسطى (الذي يشمل تجويف الأذن الوسطى والعظميات) (OM) التهاب الأذن الوسطى او `` الأذن اللاصقة '') OME) مع الانصباب OM، (AOM) الحاد OM هو مصطلح شامل يشمل في OM هذه الدراسة بأثر رجعي تهدف إلى تقييم مدى انتشار 1 (CSOM) MO والتقيحي المزمن الناصرية ، أجريت الدراسة في عيادة الأنف والأذن والحنجرة في مستشفى الحبوبي التعليمي في الناصرية العراق لمدة شهر يناير وفبراير وسبتمبر وأكتوبر لعدد 2538 مريض. عمر المريض أقل من جميع المرضى خضعوا OM سنة ، من سنة إلى ستين سنة ، وما فوق الستين سنة تحت الفحص استشارة الطبيب بأحد الحالات MO لفحص الأنف والأذن والحنجرة يمكن للمرضى الذين يعانون من التالية: 1) أذن غير معالجة حديثة التفريغ ، 2) أذن تم تفريغها باستمرار ، 3) أذن مفر غة بشكل متكرر ، 4) أذن مفرغة مصحوبة بصداع وحمى ودوخة وغيرها علامات الخطر ، أو 5) طبلة الأذن جافة مثقوبة مع فقدان السمع. يتم إدارة السيناريوهين الأولين بشكل أفضل على مستوى الرعاية الصحية الأولية من خلال استجواب مقدم الرعاية بصبر ، وفحص طبلة الأذن بعناية ، وإعطاء مضادات