



## Original Research Article

# Prevalence of ENT disorders among children in UAE: A tertiary medical care study

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## ABSTRACT

### Keywords

Children,  
Otitis Media  
Effusion,  
Rhinitis,  
Adenoids, Tonsil

A retrospective study was conducted at al sharq medical centre, a tertiary care centre in Fujairah, United Arab Emirates (UAE). The entire paediatric age group patients attending ENT OPD clinic during the calendar year of 2013 were selected for the study. The main aim of this article is to determine the prevalence of ENT disorders in children in one of the northern emirates of UAE. A total of 625 children registered during 2013. Most common ENT diseases seen were rhinitis (47.6%) followed by acute otitis media (42.9%) & tonsillitis.

## Introduction

UAE is one of the fastest growing nations in the world with everyday newer infrastructural projects emerging, creating a vibrant atmosphere in the Middle East. The incidence of ear, nose, and throat disorders in children is increasing in Gulf countries, which may be due to environmental factors involved in it. Lack of data makes it even more difficult to assess the situation... ENT diseases can be accurately diagnosed by taking good clinical history from children or from their parents... According to WHO, 42 million children are suffering from hearing disability, most common is otitis media (1). Current study aims to find exact magnitude of ear, nose, and throat diseases in children in the region. This will encourage health authorities to implement programmes such as TV shows, poster presentations, seminars, etc. to educate people about disease prevention

& also ENT specialists play a vital role in preventing & managing these diseases effectively.

## Material and Methods

The present study was conducted in Al Sharq Medical Centre, a tertiary health care unit in Fujairah in UAE. Children aged from 0-14 years attending ENT OPD clinic from Jan 2013-Dec 2013 were included for the study. A structured questionnaire highlighting symptoms was administered to the patients & parents. All the children underwent complete ENT examination & appropriate investigations were carried out such as X-ray nasopharynx, tympanometry, culture & sensitivity, etc. Data were stored in electronic medical records (SAP system) & were analysed statistically using frequency

and percentage. p value less than 0.05 is considered significant.

## **Results and Discussion**

A total of 625 children aged 0-14 years visiting ent outpatient clinic during the year 2013 were analysed for the study. Ent diseases in our study population were found to be more common among female children, however this difference was not statistically significant. Out of 625 children there were 366 female (58.56%) & 259 male (41.4%) children with male to female ratio 1:1.41 with standard deviation (SD) 75.6. Highest incidence of ent disorders is seen in the age group of 6-14 years comprising about 275 among 625 children (44%). (Fig1)

Diseases of the ear were the common group of ent problems among 314 children (50.24%) followed by 170 nasal cases (27.2%) and about 141 oropharyngo-esophageal disorders (22.56%) (fig2)

Ear disorders-most common otological disease presented is acute otitis media (AOM) 135 cases (42.9%) followed by otitis media effusion (OME) 63 cases (20.6%) and impacted wax in 61 cases (19.4%). others such as ear piercing, otitis externa, mastoid abscess, preauricular sinus etc comprises about 55 cases 17.5%. (Fig3)

Nose disorders-Rhinitis is the most common disease entity encountered in our study comprises about 71 cases (41.7%) followed by adenoid hypertrophy in 51 cases (30%) and epistaxis is seen in about 33 cases (19.4%). miscellaneous conditions such as foreign body nose, furuncle of nose constitute about 15 cases (8.8%) respectively. (fig4).

Throat disorders- Tonsillitis was troubling in 51 cases (36.1%) followed by pharyngitis 40 cases (28.3%), cervical lymphadenitis in 20 cases (14.1%). Others such as parotitis, foreign body throat etc were reported in 30 cases (21.2%) (fig5).

The main health problem concerning in UAE is increasing in the frequency of ear, nose, throat symptoms among children. The current study aims to determine the incidence of ent disorders in children in general population.

In this study majority of the children were suffering from ear problems which accounts for about 50.24%. Acute otitis media (42.9%) is the most prevalent disease causing hearing loss followed by otitis media effusion (20.6%) & impacted wax (19.4%).

Inflammation of the middle ear cleft is one of the most common medical problems of childhood and a common cause of hearing loss making it one of the most frequent morbidities encountered in day to day clinical practice. Otitis media with effusion occurs either as the aftermath of an episode of AOM or as a consequence of Eustachian tube dysfunction attributed to an upper respiratory infection (2). However, otitis media effusion may also precede & predispose to the development of AOM. These two forms of otitis media may be considered segments of a disease continuum (3). Although otitis media effusion does not represent an acute infective process that will benefit from antibiotics, therefore it is challenging for clinicians able to differentiate normal middle ear status from otitis media effusion or acute otitis media. (4)

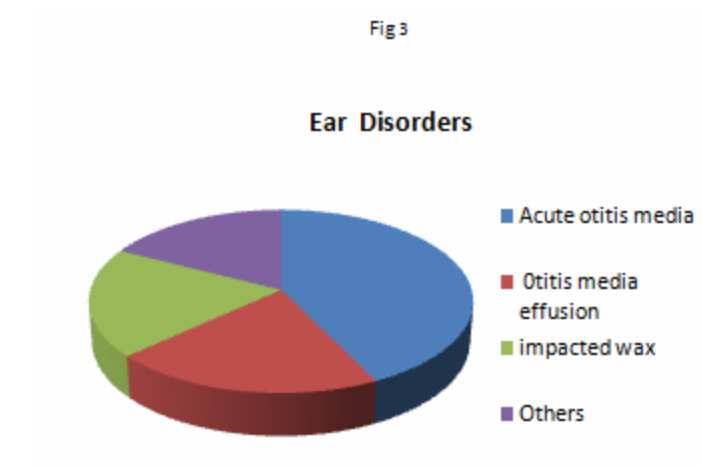
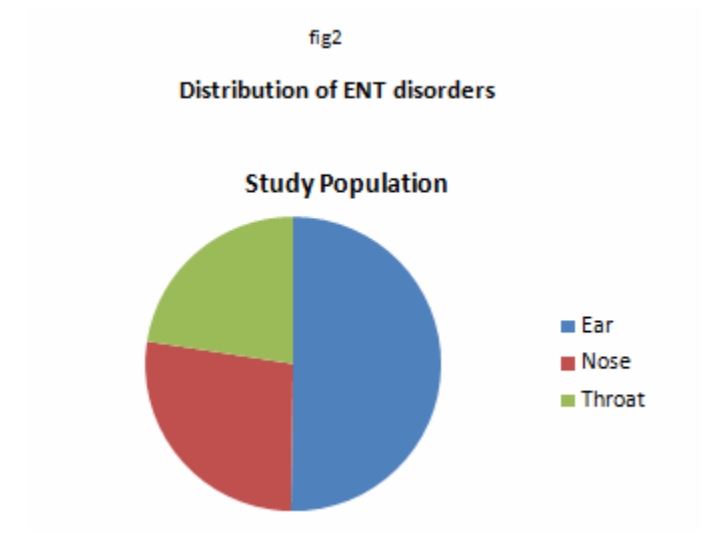
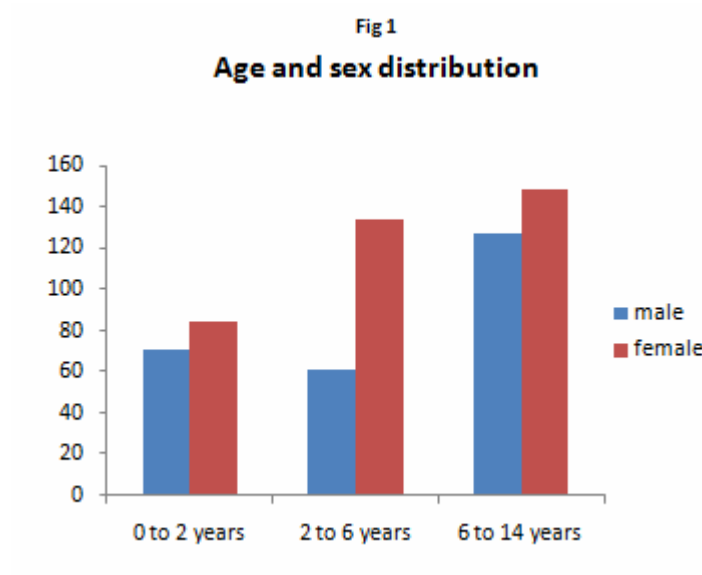


fig4

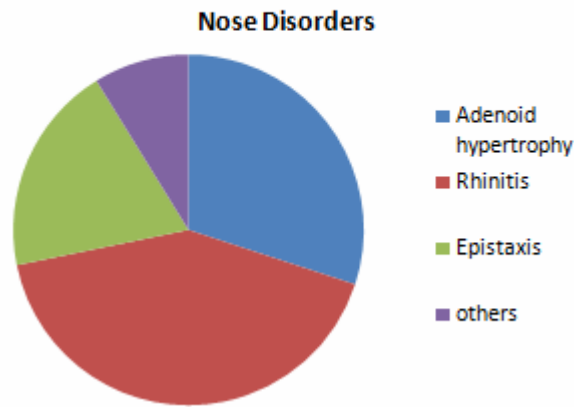
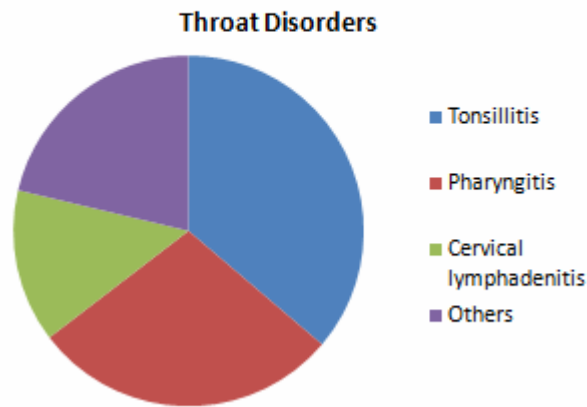


Fig 5



The study conducted by sanjay p et al (5) showed prevalence of acute otitis media in about 31.8% of cases & otitis media with effusion (20.7%) our study is in par with this study.

In a similar survey by Elton and cornel (6) acute otitis media is the commonest cause for hearing loss in about 28% of the cases. Amusa et al (7) study revealed otitis media in 29% of cases followed by wax impaction(5.9%)&OME(5.3%). Okafor (8) found wax is the 3<sup>rd</sup> commonest cause of hearing disease in southern part of Nigeria. Furthermore prevalence of csom is low in

this region comparable to developing countries may be due to acceptable socioeconomic factors.

Rhinitis (41.7%) is the commonest ent disorder in our study population, whereas epistaxis in children is seen in 19.4% of cases. Cherian et al (9) showed persistent rhinorrhoea (21%) among rural children associated with otitis media & epistaxis in 15% of the cases. The bottom line is incidence of epistaxis is decreasing when compared to earlier studies. Current study can be comparable to sanjay p et al study done in hospital among rural children which

shows incidence of rhinitis in 38.2% & epistaxis in 16.6% of the cases

Pharyngitis is the most common throat morbidity seen in study by R Nepali et al(10) whereas in the present study it constitutes about 28.3%.

Adenotonsillar problems notably obstructive hypertrophy & infection are very common in early childhood.Recuurent infections of the tonsils &adenoids can be a source of upper &lower respiratory infections. Hypertrophy can lead to sleep disordered breathing, eating disorders &even growth problems(11,12).Recurrences are frequent especially in children between the ages 4 to 7 when some children suffer repeated attacks of tonsillitis.

The current study shows incidence of tonsillitis is 36.1% which is comparable to study by sanjay et al (5) which showed in about 42.9% of cases.

Adenoidal hypertrophy during childhood may both fill the nasopharynx and extend through the posterior choanae into the nose resulting in nasal airway stenosis, impeding airflow.Sequelae include mouth breathing and rhinorrhoea, sleep disordered breathing, speech anomalies, feeding difficulties, chronic sinusitis, craniofacial anomalies and otitis media.(13)

In our study incidence of adenoid hypertrophy is about 30% compared to study by sanjay et al (5) which shows 20.5% of the cases.

From the current study recuurent attacks of otitis media, otitis media effusion, enlarged adenoids causing symptoms are more commonly seen in this region necessitating surgical intervention. Furthermore prevalence of discharging ears is very much

low.is a good sign.Finally more research is needed to assess unexplained factors involved in the diseases process in this part of the world.

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