INTRODUCTION

Otitis media is an inflammation of the mucosal lining of the middle ear cleft (middle ear cavity, Eustachian tube and mastoid). It has several types; the most important three types are: Acute (rapid onset of symptoms of inflammation, earache, fever, malaise and decreased hearing), chronic (insidious onset with discharging ear) and otitis media with effusion (collection of fluid transudate inside the middle ear cavity due to Eustachian tube dysfunction). The most common etiological pathgens are bacteria (e.g., Streptococcus pneumonia, Heamophilus influenza, Branhamella catarrhalis and Staphylococcus aureus) and viruses (e.g., respiratory syncytial virus (RSV), adenoviruses, influenza and para influenza viruses) ***(Yano et al., 2003).***

Acute otitis media (AOM) is a major health problem in young children. There is a general conception that AOM is a bacterial disease but with availability of sensitive diagnostic methods, it has gradually become evident that virus play an important role in the pathogenesis of AOM ***(Raty et al., 2004).***

Respiratory Syncytial Virus (RSV) is a common human respiratory virus and a leading etiological agent of the lower respiratory tract infections in infants and younger

children. Asymptomatic infection is uncommon. The infection is severe and generally involves the lower respiratory tract as bronchiolitis (the characteristic feature of RSV) or bronchopneumonia ***(Brandenburg et al., 2000)***. Recently, it has been postulated that RSV is one of the common virus affecting and adding to the etiology of otitis media ***(De Alarcon et al., 2001).***

The microbiological causes of otitis media have been decumented by appropriate cultures of middle ear discharge, many bacteriological studies of acute otitis media have been performed, and the results are consistent in demonstrating the importance of streptococcus pneumonia and heamophilus infleunza and a minor role for moraxella catarrhalis and chlamydia trachomotis which is responsible for some episodes of otitis media in infants six months of age and younger ***(Schaefer, 1999).***

AIM OF THE WORK

The aim of this work is detection of viral and bacterial causes of otitis media in children.

MATERIALS AND METHODS

Patients attending the ENT clinic of Benha University Hospital complaning of purulent ear discharge and diagnosed clinically as otitis media re subjected to:

a- History taking.

b- Clinical examination.

c- Laboratory invesigation:

1- Specimen is the ear discharge which is subjected to:

- Part of ear discharge will be inoculated on bacteriological culture media for diagnosis of bacterial causes of otitis media.
- Remaining part of the specimen will be inoculated into susceplible cell lines.
- All cultures will be observed on alternate days for CPE. The positive cultures will be confirmed by direct immunoflourescence.

2- Serum sample will be taken from the same patient and will be subjected to indirect immunoflourescence staining.