

# ***Dedication***

***To My Dear Father and  
Mother***

***To My Dears Brothers***

***To My Dear betrothed***

***To All Patients of Lower  
Respiratory Tract  
Infection***

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## Abstract

This study was aimed to isolate and identify the causative agent of lower respiratory tract Infection in addition to frequency of pulmonary tuberculosis among suspected individuals.

A total of one hundred and sixty patients with symptoms of lower respiratory tract infection attending to Abu-Anga Hospital and Hospital of Tropical Diseases were enrolled in this study. This study was carried out during the period from October 2008 to March 2009. Selection of all patients depends mainly on clinical symptoms and consulted chest X-ray. Sputum specimens were taken from patient. And the age of the enrolled patients varies from 13 to 83 year.

About 102 (63.8 %) were male, while 58 (36.3%) were female., the result of Z.N stain reveled 50 (31.3%) specimens was found to be positive, while the remaining specimens 110(68.8%) showed negative result, concerning other causative agents of lower respiratory tract infection colonial morphology on(blood ,chocolate and MacConkey's Agar) , Gram's stain and biochemical tests were used. The results obviously showed that secondary invaders to tuberculosis were found in (31.3 %) were found as fellows *Streptococcus pneumoniae* (26.0%), *Streptococcus pyogenes* (26.0%), *Streptococcus pyogenes* and aerobic Actinomycetes (26.0%) as co-infection, unidentified (12.0%), *Staphylococcus aureus* (4.0%), *Haemophilus Influenzae* (2.0%) and aerobic Actinomycetes (12.0%). Regarding the non tuberculosis patients 110(68.8%) the result clearly showed *Streptococcus pneumoniae* (43.6%), *Streptococcus pyogenes* (10.0%), *Streptococcus pyogenes* and

aerobic Actinomycetes (15.5%) as co-infection, unidentified (14.5 %), *Staphylococcus aureus* (4.5%), *Haemophilus Influenzae* (0.9%) and aerobic Actinomycetes (8.1%), *Klebsiella Pneumoniae* (0.9%) and no growth (1.8%).

According to this finding *S. pneumoniae* found to be the most common isolate in both tuberculosis patients 26.0% and non tuberculosis patients 43.6%.

هَدَفَتْ هذه الدراسة لِعَزْلِ و التعرف على البكتريا المسببة لإلتهاب المجرى التنفسي السفلى بالإضافة إلى تردد السُلِّ الرئوي بينهم. من ما مجموعه مائة و ستون مريض من مرضي لديهم اعراض التهاب في المجرى التنفسي السفلي من مستشفى ابو عنجه و مستشفى المناطق الحارة خلال الفتر من اكتوبر 2008 حتي مارس 2009 تم إختيارهم لإجراء هذه الدراسة. تم إختيار المرضى على اساس الأعراض السريرية و اشعة الصدر السينية. اخذت عينة بلغم من المرضى. في هذه الدراسة كان عدد الذكور 63.8 % و عدد الاناث 36.3 % . اظهرت عينات البلغم بعد صبغها بصبغة (زيهل نلسون ) 31.3% موجبة اللطاخه للصبغ الم قاوم للاحماض و 68.8% كانت سالبة اللطاخه للصبغ الم قاوم للاحماض. و عندما تم ترزيعها فى اجار الدم و اجار الشوكلاتة و وسط ماكونكي و تم التعرف علي البكتريا المعزولة عن طريق الإختبارات الكيموحيوية و صبغة غرام للبحث عن اصابة بكتيرييه ثانويه اضافتا لادرينات العصبوية , اوضحة نتائج الترزيع اقتران اصابات بكتيرييه مع الدرن الرئوي في جميع العينات التي تم ترزيعها و قد كانت بكتريا المكورات السبحية الرئوية (26.0%), المكورات السبحية المقيحة ( 26.0%), المكورات السبحية المقيحة و الاكتاينومييسيت الهوائيه (26.0%), غير معروفه ( 12.0%), المكورات العذقودية الذهبية (4.0%), المستدمية النزلية (2.0%) و الاكتاينومييسيت الهوائيه (12.0%). أما بالنسبه الي المرضى الذين لايعانون من الدرن 110 (68.8%) فقد عزلة منهم المكورات السبحية الرئوية (43.6%), المكورات السبحية المقيحة (10.0%), المكورات السبحية المقيحة و الاكتاينومييسيت الهوائيه (15.5%), غير معروفه (14.5%), المكورات العذقودية الذهبية (4.5%), المستدمية النزلية (0.9%) و الاكتاينومييسيت الهوائيه ( 8.1%), الكلبسيلا الرئوية (0.9%) و لم يوجد نمو بكتيري في (1.8%). طبقاً لهذه النتائج وَجَدَ ان المكورات السبحية الرئوية الأكثر شيوعاً بحيث عزلة في كلا مرضى السُلِّ 26.0 % و مرضى إلتهاب المجرى التنفسي السفلى 43.6 %.

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