الآيـــــــــة

بسم الله الرحمن الرحيم

قال تعالى:

((اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ (1) خَلَقَ الْإِنسَانَ مِنْ عَلَقٍ (2) اقْرَأْ وَرَبُّكَ الْأَكْرَمُ (3) الَّذِي عَلَّمَ بِالْقَلَمِ (4) عَلَّمَ الْإِنسَانَ مَا لَمْ يَعْلَمْ (5)))

سورة العلق

الايات (1-5)

Dedication

I dedicate this research to the person whose

prayer help me and encourage me to the way of success

My mother

To the soul of my Father

and

my brother and sisters for their support

and

my friends and my colleagues

the people whom I love ,respect and appreciate

and

every one from whom I learned.

Acknowledgment

First of all I thank Allah for giving

me strength and patience to perform this work.

I would like to express my deepest gratitude and

respect to Dr .Yousif Fadallah Hamd Elniel

for his supervision , time, patience, effort and

help me to carry this research

thank to My colleagues and friends, and for their support and help throughout this study.

ABSTRACT

Streptococcus pneumoniae is the most common cause of pneumonia worldwide, and pneumonia is the most common manifestation of pneumococcal infection.

This study was carried out in the research laboratory, college of medical laboratory, Sudan University of science and technology in the period from April to July 2012.

The aim of the study was to determine the frequency and susceptibility pattern of *S. pneumoniae* among patients with lower respiratory tract infection in Alshaab Teaching Hospital.

One hundred sputum specimens were collected from patients with lower respiratory tract infections in Alshaab hospital. Ziehl Nelseen stain was done for all specimens. Then all ZN stain negative smears were cultured on blood, chocolate and MacConkey agars for isolation of *S. pneumoniae*. Identification of isolates were done by colonial morphology, Gram stain, and biochemical tests. And antibiotic sensitivity was performed to *S. pneumoniae* by disc diffusion methods.

The result revealed that, 12% were *S. pneumoniae*, 8% were *Escherichia coli*, 5% were *Pseudomonas aeruginosa*, 21% were *K. pneumoniae*, 10% were *S. aureus* , 2% were protus species and 23% were viridans streptococci.

and Showed that the *S. pneumoniae* was sensitive to chloramphnicol (100%), ciprofloxacin (100%), tetracycline (75%), erythromycin (50%), and was resistance to penicillin (100%).

This study conduded that presence of *S. pneumoniae* isolates among patients with LRTI in Khartoum State was 12%.

مستخلص الأطروحة

المكورات السبحيه الرئوية تمثل النسبة الاكبر من مسببات الإلتهاب الرئوي في كل العالم وتعتبر الاصابه بالالتهاب الرئوي من اكثر الامراض التي تسببها المكورات السبحية الرئوية.

اجريت هذه الدراسه في معمل الابحاث بكليه علوم المختبرات الطبية بجامعة السودان للعلوم والتكنولوجيا في الفتره من ابريل الي يوليو 2012.

كان الهدف من هذه الدراسه تحديد تردد ونمط حساسية المكورات السبحية الرئوية لدي مرضي التهاب الجهاز التنفسي السفلي بمستشفي الشعب التعليمى.

تم جمع مائة عينة بلغم من المرضي الذين يعانون من عدوى الجهاز التنفسي السفلي في مستشفي الشعب التعليمى، ومن ثم تم عمل صبغه زييل نيليسن لكافة العينات، العينات السالبه لصبغة زييل نلسن وتمت زراعتها في اوساط مختلفه في أطباق الدم، الماكونكي والشوكولاته للعزل الأولي للمكورات المزدوجة الرئويه .

للتعرف علي البكتريا التي تم عزلها حسب خصائصها المظهريه، وصبغه الجرام، والتفاعلات الكيميائيه .واظهرت الدراسه ان نسبة المكورات السبحية الرئوي 12%، الإشريكية القولونية 8%، الزائفة الزنجارية 5%، الكلبسلة الرئوية 21%، العنقوديه الذهبية 10% والعقديه المخضرة 23%.

وكذلك اجريت اختبارات الحساسية عن طريق الاقراص بالتشرب واظهرت الدراسه ان المكورات المزدوجه الرئويه حساسه للكلورامنفكول 100%، السيبروفلوكساسين 100%، التتراسايكلين 75%، الارسرومايسين 50%، ومضادة للبنسلين 100%.

خلصت هذه الدراسة انه تم عزل السبحية الرئوية بنسبة تمثل 12%من مرضي الجهاز التنفسي السفلي .

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