

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال الله تعالى

قَالَ لَهُ مُوسَى هَلْ أَتَّبِعُكَ عَلَى أَنْ
تُعَلِّمَنِي مِمَّا عُلِّمْتَ رُشْدًا

صدق الله العظيم

سورة الكهف الآية 66

Dedication

To:

My mother

Sorrow of my father

Brothers and sisters

Acknowledgment

First of all my thanks and eulogize were due to ALMIGHTY ALLAH, the beneficent and merciful, for giving me health and strength to accomplish this work.

I would like to express my deepest gratitude to my supervisor Dr. Yousif Fadlalla Hamed Elnil for his guidance, insight, encouragement and valuable supervision throughout this study.

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Abstract

The aim of this study was to determine the frequency of *Moraxella catarrhalis* in sputum specimens among patients with lower respiratory tract infection. A total of 200 sputum specimens collected from Khartoum state in Alshaab hospital during January to June 2011. Bacteriological analysis of sputum specimens were performed for *Moraxella catarrhalis* including inoculation on Sheep blood agar and on chocolate agar. The identity of the isolates was confirmed by DNase test, Tributyrin test and reduction of nitrate to nitrite. Susceptibility testing and β -lactamase production were carried out for each isolate. Out of 200 sputum specimens; 2 (1%) *Moraxella catarrhalis* was recovered from patients with age more than 50 years. The two isolates produced β -lactamase and resistance to ampicillin. They were susceptible to Amoxycylav, Azithromycin, Ceftazidime, Ceftriaxon, Cephalexin, Cephalexime, Chloramphenicol, Ciprofloxacin, Cotrimoxazole and Erythromycin. This study showed that *M. catarrhalis* considered being one of important respiratory tract pathogen in adults particularly with age more than 50 years old. Since most strains produce β -lactamase, antibiotic therapy should be guided by *in-vitro* susceptibility tests.

الهدف من هذه الدراسة هي لمعرفة معدل عزل الموراكسيلة النزلية من عينات القشع لدي المصابين بالتهاب الصدر السفلي. لهذا الغرض جمعت 200 عينة قشع من مستشفى الشعب التعليمي في الفترة ما بين يناير الي مايو 2011.

تم التعرف و التأكد من خصائص الموراكسيلة النزلية باجراء كل من اختبارات DNase و Tributyrin و اختزال النيتريت كما تم اجراء اختبارات الحساسية للمضادات الحيوية والقدرة علي افراز انزيم البيتالاكتاميز. تم عزل معزولتان من الموراكسيلة النزلية من 200 عينة قشع بمعدل 1% من اشخاص اعمارهم فوق الخمسين سنة . كل الموراكسيلة النزلية التي تم عزلها لديها القدرة علي افراز انزيم البيتالاكتاميز وكانت حساسة للمضادات الحيوية التالية: اموكسكلاف, ازيزرومايسين, سفتازيدين, سفتريزون, سفلاكسين, سفوتاكزيم, كلورامفينيكول, سيبروفولاكسيسين, كوتريمكزازول و الاريسرومايسين بينما مقاومة للامبسلين.

اظهرت هذه الدراسة ان الموراكسيلة النزلية هي احدي من مسببات اصابات الصدر لدي الاشخاص الكبار وخاصة الزين يزيد اعمارهم عن الخمسين عام. ومع ظهور سلالات من الموراكسيلة النزلية قادرة علي افراز انزيم البيتالاكتاميز لا بد من اجراء اختبار البيتالاكتاميز عند عزل اي من الموراكسيلة النزلية وكذلك الحساسية ضد المضادات الحيوية قبل بدا استخدامها.

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