

Dedication

To my Parents,
Brothers, Sisters
&
friends

Acknowledgments

First of all thanks to ALLAH.

I would like to express my sincerest gratitude to Dr.Humodi Ahmed Saeed associate Professor of Microbiology, College of Medical Laboratory Science for his guidance and help also to Mr.Mohammed Masaad Ahmed ,Head Department of Microbiology, Sudan University of Science and Technology for his support and encouragement and .

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Abstract

This study had been conducted to determine the susceptibility of Methicillin-Resistant *Staphylococcus aureus* (MRSA) and *staphylococcus aureus* to selected antibiotics traditionally used in Sudan such as vancomycin, erythromycin, ciprofloxacin and gentamicin.

Conventional techniques were used to isolate and identify *S. aureus* and MRSA strains. NCCLS modified-Kirby-Bauer disc diffusion technique had been used to carry out the susceptibility testing.

A total of one hundred strains of *S. aureus* were isolated from the clinical specimens 36.6% from infected wound, 94.1% from ear infection and 59.1% from UTI patients. Only 21% of *S. aureus* isolates were MRSA.

The resistance rate of oxacillin (represent methicillin), gentamicin, erythromycin and ciprofloxacin against *S. aureus* strains were 21%, 22%, 14% and 4% respectively.

The resistance rate of oxacillin, gentamicin, erythromycin and ciprofloxacin against MRSA were 100%, 90.5%, 33.3% and 19.05 % respectively. All the MRSA strains were sensitive to vancomycin.

النتائج

اجريت هذه الدراسة لتحديد حساسية المكورات العنقودية الذهبية المقاومة للمثسلين (MRSA) والمكورات العنقودية الذهبية تجاه المضادات الحيوية التقليدية المستخدمة في السودان مثل: الفانكوميسين، الإريثروميسين، السيبروفلوكساسين والجنتاميسين .

تم استخدام الطرق الاعتيادية لل عزل وللتعرف على المكورات العنقودية الذهبية والمكورات العنقودية الذهبية المقاومة للمثسلين. استخدمت طريقة كيربي-بورك لعمل اختبارات حساسية البكتيريا للمضادات الحيوية.

تم عزل مائة سلالة من المكورات العنقودية الذهبية، 36.6% منها من التهابات الجروح 94.1% من التهابات الاذن و 59.1% من مرضى بالتهاب المجاري البولية. كل سلالات MRSA كانت حساسة للفانكوميسين.

معدل المقاومة وسط المكورات العنقودية الذهبية للاوكساثيلين، الجنتاميسين، الاريتروميسين والسيبروفلوكساسين كان 21%، 22%، 14% و 4% على التوالي.

نسبة المكورات العنقودية الذهبية المقاومة للمثسلين ((MRSA وسط المكورات العنقودية كانت 21% ومعدل مقاومتها للاوكساسيلين، الجنتاميسين، الاريتروميسين والسيبروفلوكساسين كان 100%، 90.5%، 33.3% و 19.05% على التوالي.

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