

:قال تعالى

بسم الله الرحمن الرحيم

[قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ

صدق الله العظيم

سورة البقرة الآية 32

To my wonderful parents who strongly supported me all throughout.

To my beloved brothers and adorable sisters.

To all those whom I always love, care and respect.

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Abstract

This study was carried out in Khartoum Teaching Hospital (KTH) during the period from November 2008 to March 2009. The main aim of this study was to determine the sensitivity and resistance patterns of *Pseudomonas aeruginosa* isolated from clinical specimens against gentamicin, carbenicillin and ciprofloxacin. 50 isolates of *Ps. aeruginosa* were recovered from wound, urine and ears at the rates of 21 (42%), 23 (46%) and 6 (12%) respectively, indicated that the wounds were common sites for pseudomonal infections. These isolates were subjected to *in vitro* sensitivity testing using the Kirby-Bauer disc diffusion technique. The age of patients examined were subdivided into five age groups. Carbenicillin was shown to be the most effective drug (80% sensitivity), while gentamicin was the least effective agent (34% resistance), followed by ciprofloxacin (28% resistance). However, while 6% of the *Ps. aeruginosa* isolates were resistant to all antimicrobial drug used in this study (multi-drug resistance), all *Ps. aeruginosa* isolates from wound infections were shown to be 100% susceptible to carbenicillin. The age group 16-30 years (30%) was found to be more exposed group to pseudomonal infections, while age group 41-60 years (8%) was found to be the less exposed one.

In conclusion, while most of the *Ps. aeruginosa* isolates were from wound infections, carbenicillin was show to be the drug of choice. The results of sensitivity testing of *Pseudomonas* clinical isolates indicate that multi-drug resistance is a major clinical problem that needs further in-depth study to be resolved.

النتائج

اجريت هذه الدراسة في مستشفى الخرطوم التعليمي أثناء الفترة من نوفمبر/تشرين الثاني 2008 إلى مارس/شباط 2009. الهدف الاساسي لهذه الدراسة تقييم اشكال الحساسيه والمقاومه لسلاطات الزائفة الزنجارية المعزوله من عيذات سريره. 50 عينه سريره لسلاطات الزائفة الزنجارية استخلصت من الجروح، البول و مسحات الأذن وكانت نسبهم 21 (24%) ، 23 (43%) و 6 (12%) علي التوالي، وهي تؤثر الى ان الجروح اكثر المواضع اصابة بالزائفة الزنجارية. كل العيذات السريره لسلاطات الزائفة الزنجارية اختبرت خارجيا للحساسيه بواسطه إستعمال تقنية إنتشار قرص كيربي- باور. الكربنسيلين هو المضاد الاكثر فعالية (الحساسيه 72%)، بينما الجنتاميسين هو المضاد الاقل فعالية (المقاومه 34%)، يليه السبروفلوكساسين (المقاومه 28%). عموما 6% من سلاطات الزائفة الزنجارية التي تم عزلها كانت مقاومه لجميع المضادات التي استخدمت في هذه الدراسة (المقاومه المتعددة للمضادات الحيويه)، وكانت كل سلاطات الزائفة الزنجارية التي عزلها من الجروح 100% حساسه للكربنسيلين تم تقسيم اعمار المرضى الذين تم اختبارهم إلى خمس فئات عمرية. الفئة العمرية 16-30 سنوات (30%) كانت هي الأكثر تعرضاً إلى الاصابه بالزائفة الزنجارية، بينما الفئة العمرية 46-60 سنوات (8%) هي الأقل تعرضاً للاصابه.

في الخاتمة، كل سلاطات الزائفة الزنجارية التي تم عزلها من الجروح وجد ان الكربنسيلين يعتبر العلاج الافضل لها. نتائج الحساسيه لسلاطات الزائفة الزنجارية التي تم عزلها توضح ان المقاومة المتعددة للمضادات الحيويه مشكله سريره كبرى، والتي تحتاج لدراسة عميقه لحلها.

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