

Dedication

To the soul of

My dear father

To my dear mother

To my sisters

Brothers,

And

To all those in the medical field

Acknowledgement

Firstly, I would like to thank Allah for His help, to complete this work. Secondly, I would like to express my gratitude to my supervisor Dr. Humodi Ahmed Saeed for his infinite help and giving me much of his time for suggestion and writing of the thesis.

Deep thanks to my colleagues in Sudan University of science and Technology for their help and encouragement to complete this work..

Thanks also to technicians in Ibrahim Malik Hospital , Khartoum Teaching Hospital and MMH.

Abstract

This study has been carried out in Khartoum state during the period October 2005 to February 2006.

The study has evaluated the activity of Gentamicin, Ciprofloxacin, Ceftazidime Impenem and amikacin against *Pseudomonas aeruginosa*, Tetracycline, Penicillin, Ciprofloxacin Gentamicin, against *staphylococcus aureus*, and isolates of Enterobacteriaceae against Nalidixic acid, Nitrofurantoin, Gentamicin, Ciprofloxacin, Tetracycline, except for *Proteus spp.*

Specimens were collected from different hospital in Khartoum state, including Khartoum Teaching Hospital 131 (34.5%) Medical Military Hospital 76 (20%), Ibrahim Malik Hospital 12 (3.2%), National Health Laboratory 49 (12.8%) & ENT Hospital 122 (29.5%) Different types of bacteria were isolated from those specimens including *Staph aureus* 37 (15%), *E. coli* 70 (28.5%) , *Klebsiella Pneumoniae* 15 (6.1%), *Proteus spp* 57 (23.2%) and *Pseudomonas aeruginosa* 67 (27.2%).

The most effective antibiotic for *Pseudomonas aeruginosa* were Ceftazidime and impenem because the resistant rate was (0%) followed by Amikacin, Gentamicin then Ciprofloxacin. For *E. coli* the most effective antibiotic is Gentamicin because the resistant rate is (7.7%). Nitrofurantion is better than Nalidixic acid for urinary isolates. For *Klebsiela Pneumoniae* isolates Gentamicin and Nitrofurantoin are the most effective antibiotics because of their low resistant rate (20%) for both. *Staph aureus* infections Gentamicin and Ciprofloxacin are the most suitable antibiotics because they have resistant rate of (5.6%) and (10.8%) respectively.

ملخص الأطروحة

تمت هذه الدراسة في ولاية الخرطوم في الفترة من سبتمبر 2005 وحتى فبراير 2006م.

هدفت هذه الدراسة الى تقييم فاعلية مجموعه من المضادات الحيوية شملت الجنتاميسين ،السبروفلوكساسين،السيفتازيديم، الإمبينيم والإميكيسين ،التتراسايكلين،البنسلين،النالي ديكسيك أسيد والنايتروفورانتوين مع مجموعه مختلفه من البكتيريا والتي عزلت من عينات البول ومسحات من الجروح والأذن الملتهيه.

تم جمع هذه العينات من عدة مستشفيات بولاية الخرطوم شملت مستشفى الخرطوم التعليمي(131) عينه وتمثل(34.5%) مستشفى السلاح الطبي بأم درمان (76) عينه وتمثل(20%) مستشفى الأنف والأذن والحنجره بالخرطوم (112)عينه وتمثل (29.5%)، مستشفى إبراهيم مالك (12)عينه وتمثل (3.2%) والمعمل القومي الصحي (49)عينه وتمثل (12.8%)

تم عزل وتحديد أنواع مختلفه من البكتريا شملت العنقوديه الذهبيه (37) سلاله ، (28) من مسحات الجروح الملتهيه وتمثل (75.7%) (8)من مسحات الاذن الملتهيه وتمثل (21.6%) وسلاله واحده من عينه البول وتمثل (2.7%) .الأسكريشيه القولونية (70) سلاله منها 44 سلاله من عينات البول وتمثل(54%)،14 من مسحات الجروح وتمثل (14%) و 12 من الأذن الملتهيه وتمثل (18%) .عزلت (18) سلاله من جنس الكلبسيلا(10) سلالات من عينات البول وتمثل(12%)، (2) من مسحات الجروح الملتهيه وتمثل (22%)

و(3) سلالات من الأذن الملتهيه وتمثل (5%)،،جنس المتقبله 57 سلاله (18) سلاله عزلت من عينات البول والجروح الملتهيه و تمثل(22%) لكل و(21) سلاله من الأذن الملتهيه وتمثل (32%) والذائفه الزنجاريه 67 سلاله 37منها عزلت من الجروح الملتهيه وتمثل(37%)،(22) سلاله من

الأذن الملتهبه وتمثل (33%) و(8)سلالات من البول وتمثل(10%).
خلصت هذه الدراسه الى أن الامينيم والسفتازيديم أفضل المضادات
الحيويه في علاج الزائفه الزنجارية . وأن الجنتاميسين هو الأفضل لعلاج ،
الاسكريشيه القولونيه والمتقلبه والعنقودية الذهبية والنايتروفيورانتوبن
والناليديكسيك اسيد هما أفضل فى حالات التهابات المجارى البويه والتي
تسببها الاسكريشيه القولونيه والكليسيلا.

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