

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الاية:

قال تعالى:

وَكَذَلِكَ مَكَّنَّا لِيُوسُفَ فِي الْأَرْضِ يَتَّبِعُوا مِنْهَا حَيْثُ يَشَاءُ ۚ نُصِيبُ بِرَحْمَتِنَا مَنْ
نَشَاءُ ۚ وَلَا نُضِيعُ أَجْرَ الْمُحْسِنِينَ (56)

صدق الله العظيم

سورة يوسف الاية 56

Dedication

I dedicate this research

To spirit of my dear father, who gave me his wonderful life and for his
kindness and devotion.

To my dear mother and brother Anan for their support and love.

To my teachers and friends who support

To any person who helped me.

Acknowledgment

First of all, my thanks to ALLAH for giving me health and strength to accomplish this research work.

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Abstract

Bacteria have proved remarkably developing resistant to a known antibiotic, however, Medicinal plants have manifested notably effective for the control of bacterial infections.

The aim of this study was isolated resistance bacteria from wound infection, then examine the antibacterial activity of different concentration of the ethanolic extracts of *Cymbopogon proximus*, *Azadirachta indica* and *Guiera senegalensis* plants against it.

One hundred samples were collected from wound infection, isolation and identification was done according to Gram stain, biochemical test and test for susceptibility to number of antibiotics. 94 showed bacterial growth, 40 (42.6%) isolates were Gram-positive bacteria (*Staphylococcus aureus*) and 54 sample Gram-negative bacteria (15 (27.8%) *Pseudomonas aeruginosa*, 13 (24.1%) *Proteus spp*, 12 (22.2%) *Escherichia coli*, 10 (18.5%) *Klebsiella pneumonia*, 4 (7.4%) *Citrobacter freundii*).

Three ethanolic extracts from Sudanese medical plants namely *Azadirachta indica*, *Cymbopogon proximus*, and *Guiera senegalensis*, used in various infectious disorders, were screened for their antimicrobial properties against 50 multi-drug- resistant Gram positive and Gram negative bacteria isolated from wound infection and standers.

Screening was carried out at 100 mg/ml concentration by agar disc diffusion and agar well diffusion method, the result revealed that all plants extracts were active against resistant bacteria with exception of few strains were inactive. The activity of these extracts is concentration dependent with MIC ranges from 50-6.25 mg/ml. These plant species have a promising level of activity against bacteria including strains resistant to antibiotics. The *Cymbopogon Proximus* whole plant ethanolic extract was more active against Gram-positive bacteria than gram-negative bacteria

مستخلص الاطروحة

لقد أثبتت البكتيريا تطوراً ملحوظاً مقاوماً للمضادات الحيوية المعروفة، إلا أن النباتات الطبية أثبتت فعاليتها في مكافحة العدوى البكتيرية .

الهدف من هذه الدراسة هو عزل البكتيريا المقاومة للمضادات الحيوية من عدوى الجروح، ثم فحص النشاط المضاد للبكتيريا بتراكيز مختلفة لمستخلص الايثانول لنباتات المحريب والنيم و الغبيش .

تم جمع 100 عينة من عدوى الجروح، وقد تم تحديد الهوية وفقا لصبغة جرام، الاختبارات الكيموحيوية و إختبار الحساسية للمضادات الحيوية القياسية. من بين هذه العزلات، كانت 40 (42.6%) عزلة عبارة عن بكتريا موجبة الجرام العنقودية الذهبية و 54 عينة من البكتيريا سالبة الجرام وهي 15 (27,8%) الزائفة الذهبية ، 13 (24.1%) المتقلبة الاعتيادية ، 12 (22.2%) الاشريكية القولونية ، 10 (18.5%) الكلبسيلا الرئوية ، 4 (7.4%) ليمونية فروندية.

تم فحص ثلاثة مستخلصات إيثانولية من النباتات الطبية وهي النيم، المحريب و الغبيش لخصائصها المضادة للميكروبات مقابل 50 بكتيريا مقاومة لاكثر من اثنين من المضادات الحيوية، ضد الباكترية القياسية وموجبة الجرام وسالبة الجرام معزولة من عدوى الجروح.

تم إجراء الفحص عند تركيز 100 ملغم / مل عن طريق نشر أجار القرص، وأظهرت النتيجة أن جميع مستخلصات النباتات كانت فعالة ضد البكتيريا المقاومة باستثناء سلالات قليلة كانت غير نشطة. و كان تركيز الحد الأدنى من تركيز التثبيط يتراوح من 25.6 – 50 ملغم/مل

هذه الأنواع النباتية لديها مستوى واعد من النشاط ضد البكتيريا بما في ذلك السلالات المقاومة للمضادات الحيوية .كان المستخلص الايثانولي لنباتات المحريب أكثر نشاطاً ضد البكتيريا إيجابية الجرام من البكتيريا سالبة الجرام.

List of Contents

الاية.....	i
Dedication.....	ii
Acknowledgment.....	iii
Abstract.....	iv
Arabic Abstract.....	v
List of Contents.....	vi
List of Tables.....	xi
List of Abbreviation.....	xii

CHAPTER ONE

Introduction

1.1. Introduction.....	1
1.2. Rational.....	2
1.3. Objectives.....	3
1.3.1. General objective.....	3
1.3.2. Specific objectives.....	3

CHAPTRE TWO

Literature Review

2.1. Herbal Medicines.....	4
2.1.1. Definition.....	4
2.1.2. Antimicrobial Properties of Medicinal Plants.....	4
2.1.3. <i>Cymbopogon proximus</i>	5

2.1.4. <i>Azadirachta indica</i>	6
2.1.5. <i>Guiera senegalensis</i>	7
2.2. Wound infection.....	7
2.2.1. Skin and Soft Tissue Infection.....	7
2.2.2. Clinical signs and symptoms of wound infection.....	8
2.3. Types and epidemiology wound infection.....	8
2.3.1. Surgical wound infection.....	8
2.3.2. Burn wound infection.....	9
2.3.3. Diabetes wound infection.....	11
2.4. Complication of bacterial in wound infection.....	12
2.5. Resistant bacterial cause wound infection.....	14
2.5.1. <i>Staphylococcus aureus</i>	14
2.5.2. <i>Pseudomonas aeruginosa</i>	15
2.5.3. <i>Proteus spp</i>	16
2.5.4. <i>Escherichia coli</i>	17
2.5.5. <i>Klebsiella pneumonia</i>	17

CHAPTER THREE

Material and Method

3.1. Study type and design.....	18
3.2. Study area.....	18
3.3. Study population.....	18
3.4. Inclusion criteria.....	18

3.5. Exclusion criteria.....	18
3.6. Sampling.....	18
3.7. Sample size.....	18
3.8. Data collection.....	18
3.9. Ethical consideration.....	18
3.10. Specimen Processing.....	19
3.10.1. Collection of specimens.....	19
3.10.2. Cultivation of specimens.....	19
3.10.3. Identification of the isolates.....	19
3.10.3.1. Culture characteristics.....	19
3.10.3.2. Gram stains.....	19
3.10.3.3. Biochemical tests for Gram's positive cocci.....	19
3.10.3.3.1. Catalase test.....	19
3.10.3.3.2. Coagulase test.....	20
3.10.3.3.3. Deoxyribonuclease (DNAase) test.....	20
3.10.3.3.4. Mannitol Agar.....	20
3.10.3.4. Biochemical test for Gram's negative bacilli.....	20
3.10.3.4.1. Indole test.....	20
3.10.3.4.2. Citrate utilization.....	21
3.10.3.4.3. Urease test.....	21
3.10.3.4.4. Motility test.....	21
3.10.3.4.5. Kligler Iron Agar.....	21

3.10.3.4.6. Oxidase test.....	22
3.10.4. Antimicrobials Sensitivity test.....	22
3.10.5. Preservation of Organism.....	23
3.11. Extraction of <i>Guiera senegalensis</i> , <i>Azadirachta indica</i> and <i>Cymbopogon proximus</i>	23
3.11.1. Preparation of <i>Guiera senegalensis</i> , <i>Azadirachta indica</i> and <i>Cymbopogon proximus</i> extracts for testing the Antibacterial Activity....	23
3.11.2. Preparation of isolation bacterial suspension.....	23
3.11.3.1. Ager disc diffusion.....	23
3.11.3.2. Determination of Minimum Inhibition Concentration.....	24
3.12. Data analysis.....	24

CHAPTER FOUR

Results

4.1. Frequency of sampling according to age group.....	25
4.2. Bacteriological Result.....	25
4.2.1. Frequency and percentage of bacterial growth.....	25
4.2.2. Gram stain for isolated bacterial growth.....	25
4.2.3. Frequency and percentage of isolated bacteria species.....	26
4.2.4. Frequency and percentage of isolated bacteria species according to gender.....	27
4.2.5. Frequency and percentage of isolated bacteria species according to ages group.....	27
4.3. Susceptibility test of bacterial isolated from wound isolate.....	28

4.5. Antimicrobial activities of *Cymbopogon proximus*, *Azadirachta indica* and *Guiera senegalensis*..... 30

4.6. Compared between activity of ethanoloic extracts of *Cymbopogon proximus*, *Azadirachta indica* and *Guiera senegalensis* against each isolated bacteria..... 33

CHAPTER FIVE

Discussion

5.1. Discussion..... 37

5.2. Conclusion..... 39

5.3. Recommendation..... 39

References..... 40

Appendix 1..... 49

Appendix 2..... 59

List of Tables

No	Title	Page No.
1	Frequency and percentage of sampling according to age group	25
2	Gram stain isolated bacteria	26
3	Frequency and percentage of isolated bacteria	26
4	Frequency and percentage of isolated bacteria according to gender	27
5	Frequency and percentage of isolated bacteria according to age group	28
6	Sensitivity test of known antibiotic and number of bacteria strain which were resistant to them	30
7	Compared between activity of 80% ethanolic extracts of <i>Cymbopogon proximus</i> , <i>Azadirachta indica</i> and <i>Guiera senegalensis</i> against each isolated bacteria strain	34
8	Multiple comparison of antimicrobial	35
9	Minimum Inhibition Concentration ethanol extract of <i>Cymbopogon proximus</i> and <i>Azadirachta indica</i> against bacteria	36
10	Characters and biochemical of <i>S. aureus</i>	60
11	Characteristics and biochemical properties of testes Gram negative bacteria	61

List of Abbreviation

<i>p.value</i>	Probability value
spss	Statistical Package of Social Science