

Myrtus communis Myrtle

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Abstract

This study was effectuate to evaluate the effect of the alcoholic extract of the *Myrtus communis* myrtle fruits on the growth of eight pathogenic bacteria, by used eight different concentrations (3.1, 6.2, 12.5, 25, 50, 100, 200, 400) mg/cm³. Seven from these bacteria were sensitive to the alcoholic extract these are: (*Klebsiella pneumonia*, *Serratia marcescens*, *Salmonella typhi*, *Escherichia coli*, *Bacillus subtilis*, *pseudomonas aeruginosa* and *Staphylococcus aureus*), whereas *Proteus vulgaris* were resistant, The results showed an increase in the sensitivity of these genus with the increasing the concentrations of the extract from (6.2) mg/cm³ which is considered the minimum inhibitory concentration M I C, Moreover the other concentrations (12.5, 25, 50, 100, 200, 400) mg/cm³ showed increase which are (18.7%, 138.3%, 514%, 826%, 1081.5%, 1428%) Respectively when compared to the MIC (6.2) mg/cm³ The sensitivity of the examined genus were variable since the diameter inhibition zone (DIZ) were (1.75, 5.4, 5.54, 8.83, 9.08, 11.29, 17.5) respectively.

Myrtus communis myrtle

³ / (400, 200, 100, 50,25, 12.5, 6.2, 3.1)

Klebsiella pneumonia)

Bacillus Escherichia coli Salmonella typhi Serratia marcescens

(*Staphylococcus aureus Pseudomonas aeruginosa subtilis*

Proteus vulgaris

(6.2)

(Minimum inhibitory concentration) MIC ³ /

³ / (400, 200, 100, 50, 25, 12.5)

MIC (1428%,1081.5%,826%,514%,138.3%,18.7%)

³ / (6.2)

(17.5, 11.29, 9.08, 8.83, 5.54, 5.4, (diameter inhibition zone) DIZ

Serratia Klebsiella pneumonia) 1.75)

Bacillus subtilis Escherichia coli Salmonella typhi marcescens

(*Staphylococcus aureus Pseudomonas aeruginosa*

Myrtle

Myrtaceae

(1,2)

(3)

Proteus vulgaris, Pseudomonas aeruginosa,)

(*Staphylococcus aureus, Streptococcus pyogenes*

(4)

³ / (200)

Staphylococcus aureus, Streptococcus pyogenes, Escherichia coli

()

(7,6,5)

/ /

: :

.2006

(20)

(8)

48

:
40

³ (200)

(24)

(%95)

rotary vaccume evaporate

(40)

Lyophilizar

(10)

(9)

: :

:
Serratia marcescens -2 *Klebsiella pneumonia* -1
Escherichia coli -4 *Salmonella typhi* -3
Pseudomonas aeruginosa -6 *Bacillus Subtilis* -5
Proteus vulgaris -8 *Staphylococcus aureus* -7

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Myrtus communis Myrtle

:

(2) (11)
 (Di methyl Sulfoxid) DMSO ³ (5)
 6.2 3.1) ³ / 400
³ / (400 200 100 50 25 12.5
 :

(3-2) (13) (12)
 18 37
³ / 10⁸
³ (0.1) (3)
 3 (0.2) (30)
 . 24 37 ³ / 400
 MIC
³ / (400, 200, 100, 50, 25, 12.5, 6.2, 3.1)
 24 37
 . MIC
 C.R. D

Salmonella typhi Serratia marcescens Klebsiella pneumonia)
Pseudomonas aeruginosa Bacillus subtilis Escherichia coli
 400, 200, 100, 50,) (Staphylococcus aureus
 (14) ³ / (25, 12.5, 6.2, 3.1
 0.05
 chloramphenicol tetracycline
 Gentamycine cephalaxine
 .(1)

Gentamycine 10Mg/disc	Cephalexine 30Mg/disc	Chloramphenicol 30Mg/disc	Tetracycline 30 Mg/disc	3 / 400	
(mm)					
15	14	10	9	14	<i>K. Pneumonia</i>
15	11	12	0	19.33	<i>S. marcescens</i>
12	0	15	13	24.66	<i>S. typhi</i>
10	0	9	12	26.33	<i>E. coli</i>
14	12	12	11	29.33	<i>B. subtilis</i>
12	0	10	0	30.66	<i>Ps. aeruginosa</i>
17	15	18	15	29	<i>Staph. aureus</i>

MIC (2)

3 / 6.2

(400 200 100 50 25 12.5)

%1081.5 %826 %514 %38.3 %18.7)

3 /

(%1428

(15)

Micrococcuss luteus Bordetella bronchiseptica

MIC

(4)

3 / (3.75 7.5)

Escherichia coli, Streptococcus pyogenes, staphylococcus aureus

3 / (1.0 0.25 0.25) MIC

(4)

)

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Myrtus communis Myrtle

Salmonella typhi, Serratia marcescens, Klebsiella pneumonia, pseudomonas aeruginosa, Bacillus subtilis, Escherichia coli,

DIZ *Staphylococcus aureus*

.(17.5 11.29 9.08 8.83 5.54 5.4 1.75)

(2)

(1)

Staph. aureus

Staph. Aureus

K. pneumonia

³ / (400)

³ / (6.2)

.K. pneumonia

DIZ

:(2)

	B ³ /								A
	400	200	100	50	25	12.5	6.2	3.1	
1.75 E	14* J	0 N	0 N	0 N	0 N	0 N	0 N	0 N	<i>K. pneumonia</i>
5.4 D	19.33 G	14.66 IJ	10.33* LM	0 N	0 N	0 N	0 N	0 N	<i>S. marcescens</i>
5.54 D	24.66 E	24.66 E	13.33 JK	11.33* LM	0 N	0 N	0 N	0 N	<i>S. typhi</i>
8.83 C	26.33 CD	20 FG	15.66 HI	10.66* LM	0 N	0 N	0 N	0 N	<i>E. coli</i>
9.08 C	29.33 AB	25.33 DE	19.33 G	16.33* H	0 N	0 N	0 N	0 N	<i>B. Subtilis</i>
11.29 B	30.66 A	27 C	20.66 FG	12.0* KL	0 N	0 N	0 N	0 N	<i>Ps. aeruginosa</i>
17.5 B	29 B	25.66 CDE	25.66 CDE	19.33 G	15.66 HI	13.33 HI	11.33* LM	0 N	<i>Staph. aureus</i>
	24.76 A	19.14 B	15.0 E	9.95 D	2.24 E	1.90 FE	1.62 F	0 G	

MIC

*

(16 5)

Myrcine Myrtol
(1)

Essential oil
Resins Tannins

(17)

Linalool (10.6%)

(32)

(%24.4) Terpineol (3.1%)

1.8 -cineole (18%)

Limonene (21.2%)

.Linyle acetate (4.6%) α -pinene

(18)

45

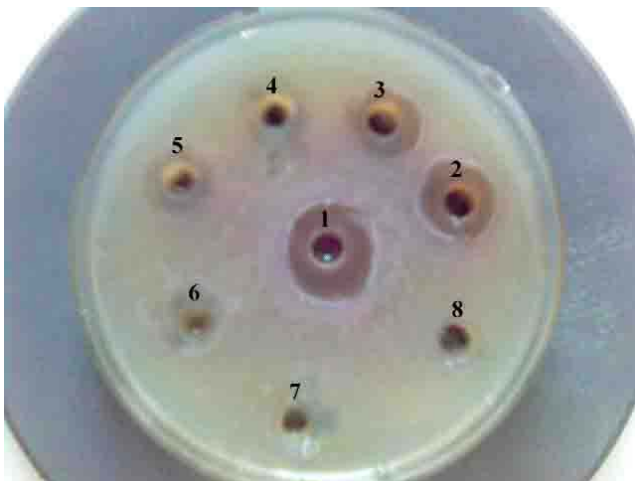
(19)

Tannins

(21)

(20)

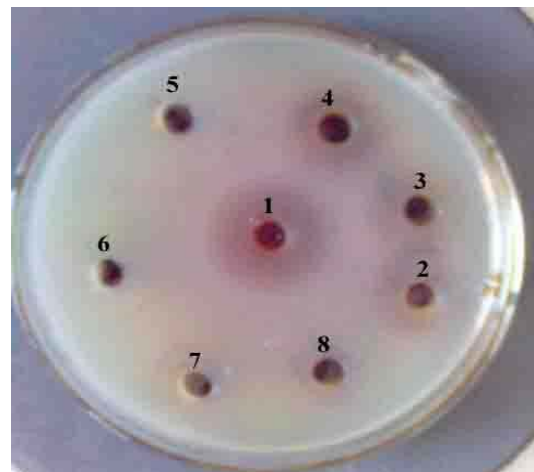
Antioxidate



:(2)

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Salmonella typhi



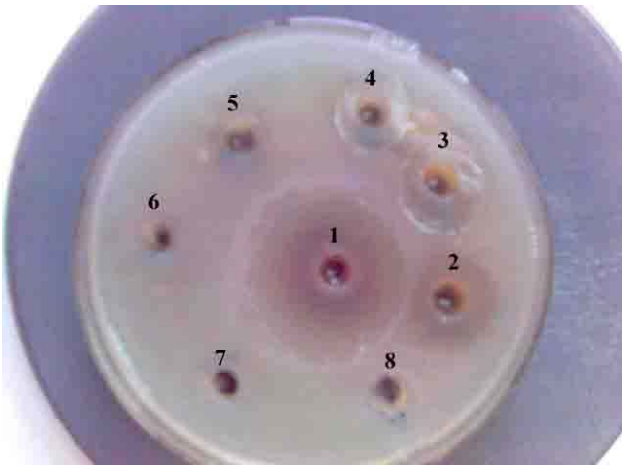
:(1)

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Serratia marcescens

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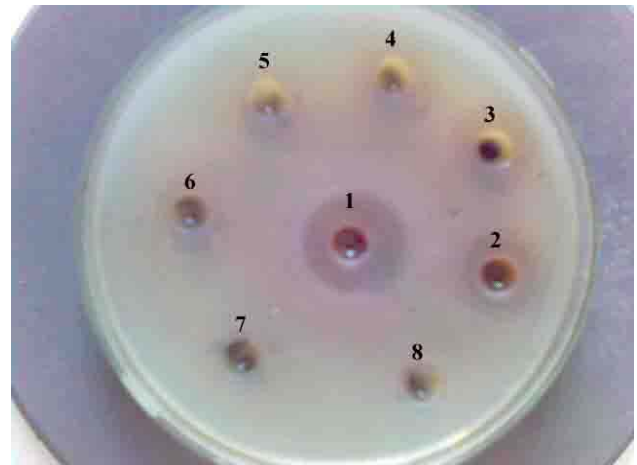
Myrtus communis Myrtle



:(4)

Bacillus

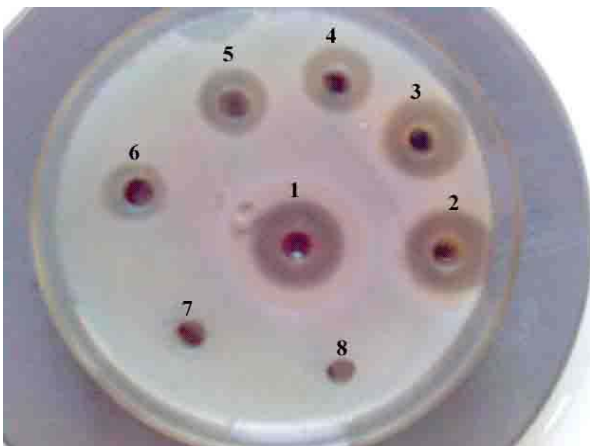
*
subtilis



:(3)

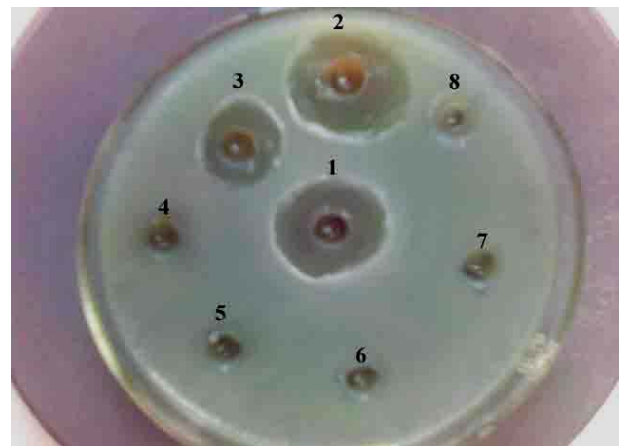
Escherichia

*
coli



:(6)

*
Staphylococcus aureus

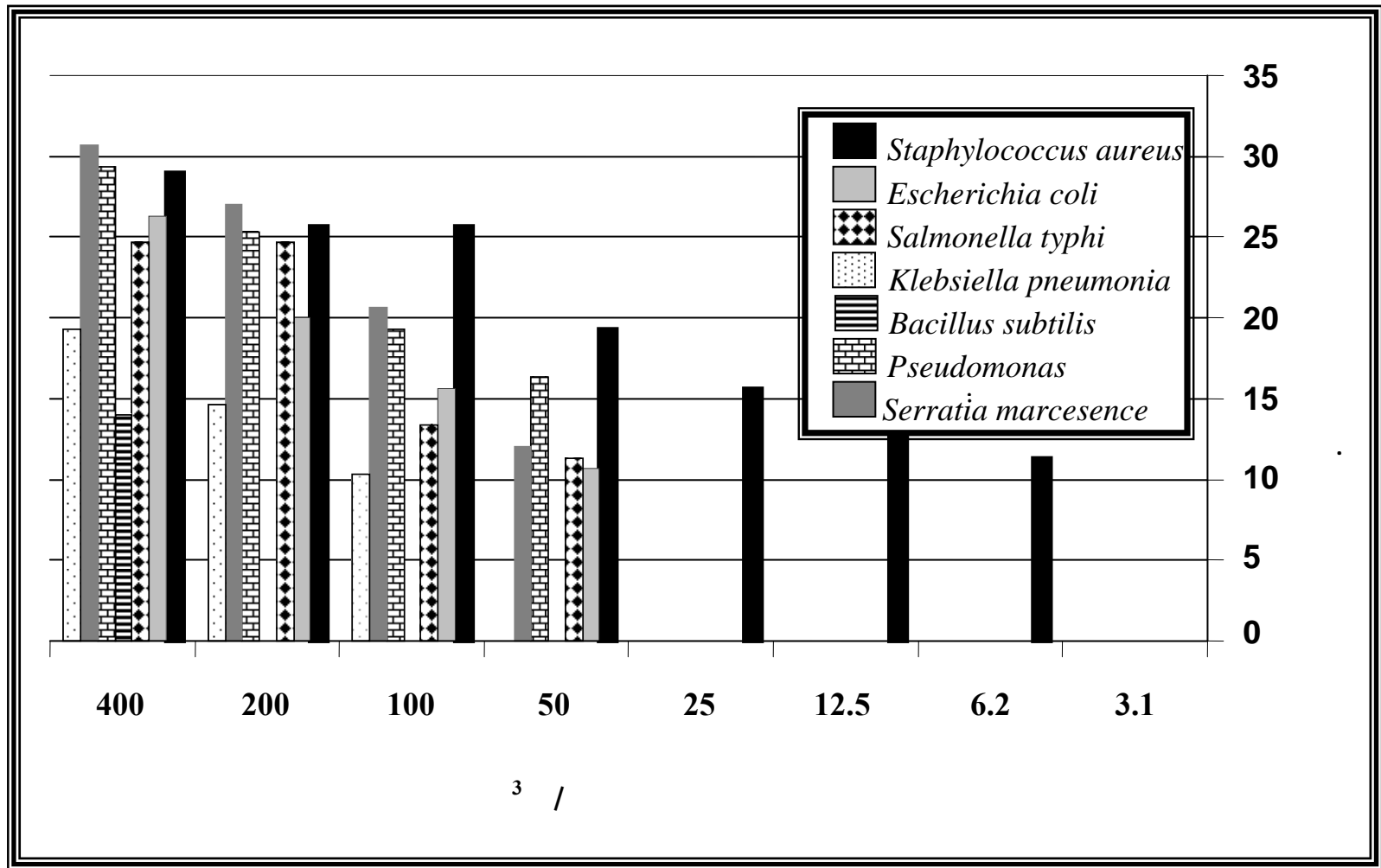


:(5)

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Pseudomonas aeruginosa

³ / (3.1, 6.2, 12.5, 25, 50, 100, 200, 400)

(8, 7, 6, 5, 4, 3, 2, 1) *



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:(1)



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