

.

- -

. (B) A

(Brain- Heart Infusion Broth)

.(Salmonella – Shigilla agar)

(Standard biochemical test)

. (Specific antiserum)

(% ,% ,% ,% ,%)

%

Paratyphoid Fever
Salmonella

Typhoid Fever
Salmonella Typhi

Paratyphi

. ()

. (Rijpkema) ()

.()

. / /
. / /

(Endemic Countries)

Kariuki)

.(

.(; Chin)

Apple Cider Vinegar

Garlic Juice

.(;)

Vit, Mucilage , Sulphide, Allium

phytonicidin, Iodine ,Sugar, Starch Silicic acide, Albumen , ABC

Alliin, S-Propenyl -L-Cysteine¹, Methionine, Cysteinne , Scordinin-A,

Methionine Cysteine

Allicine

, Cysteinne

.()Allicine Allinase

(P,Ca, K,Na, Fe)

()

(Allicine)

.()

Escherichia .Coli , *Salmonella typhi*

Vibrio Shigella spp. Staphylococcus , spp. Salmonella paratyphi ,

Candida albicana Sacchromyces cerevisiae

Aspergillus_

.() *Tragoderma granarium Musca domestica*

.()

۲۰۱۰، ۳۱ - ۲۵ : ()

.() ()

. (B) A

– (Brain- heart infusion broth)

, (*Salmonella - Shigella* agar)

.(Kirby – Bauer)

Mullare –Hinton agar

) Inhibition – zone
.(

()

.()
. (Wilcoxon Signed Rank Test)

()

– %

, – % %

٢٠١٠، ٣١ - ٢٥ : ()

%

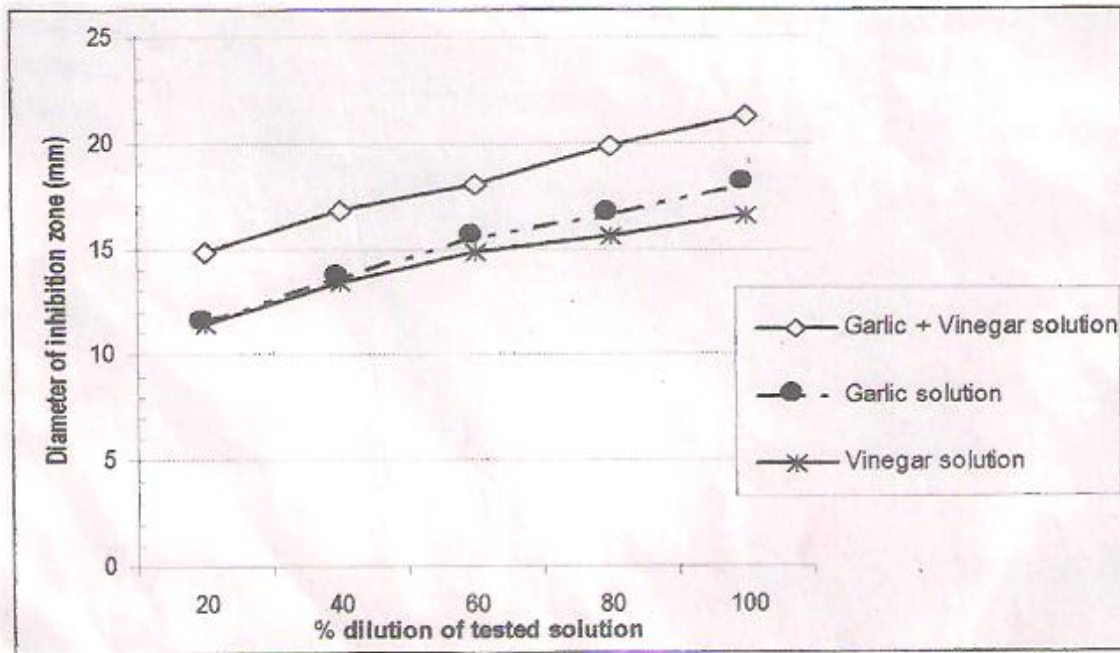
() ()

%

(%)					
١٠٠	٨٠	٦٠	٤٠	٢٠	
Garlic +Vinegar solution					
١٧ --٣٠	١٦ --٢٨	١٥ --٢٦	١٤ --٢٥	١٢ -- ٢٢	المدى(ملم)
٢١,٣	١٩,٨	١٨	١٦,٨	١٤,٨	المعدل
١,٤	١,٤	١,٣	١,٣	١,٢	الخطأ القياسي
Vinegar Solution					
١٦ --٢٠	١٤ --١٩	١٣ --١٨	١١ --١٧	٨ --١٦	المدى(ملم)
١٨	١٦,٦	١٥,٥	١٣,٦	١١,٥	المعدل
٠,٥	٠,٦	٠,٦	٠,٨	١	الخطأ القياسي
Garlic Solution					
١٦ --٢٠	١٤ --١٩	١٣ --١٨	١١ --١٧	٩ --١٥	المدى(ملم)
١٨	١٦,٦	١٤,٨	١٣,٤	١١,٤	المعدل
٠,٥	٠,٦	٠,٦	٠,٧	٠,٧	الخطأ القياسي
P(Wilcoxon Signed Rank Test) for difference between					
٠,٠٢	٠,٠٢	٠,٠٤	٠,٠٣	٠,٠٤	Garlic X Garlic +Vinegar
٠,٠٢	٠,٠٢	٠,٠٢	٠,٠٢	٠,٠٢	Vinegar X Garlic +Vinegar
٠,١٩[NS]	٠,١٩[NS]	٠,٣٧[NS]	٠,٨٥[NS]	* ٠,٤٩[NS]	Garlic x Vinegar

*Stander error :S.E

No significant :NS



P (Wilcoxon Signed Rank Test)

p %

Allicine
cystein
() Allicine Allinase
,S- allyl Cysteine

acetic acid ()

(CH COOH)

+ + + +

)

.(

(, ,) . .

-

()

Staph .uareus

pseudom. Aemginosa

(*Bacillus cereus*)

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Kariuki , S., G. Revthi , J. Muyodi, J. Mwitura. . Characterization of multidrug – resistant typhoid outbreak in Kenya .J.Clin.Microbiol. ():

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STUDY THE INFLUENCE OF BOTH GARLIC JUICE AND APPLE CIDER VINEGAR ON SALMONELLA TYPHI AND PARATYPHI .

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ABSTRACT

Typhoid and paratyphoid fever is the common disease in community . this is one of the important healthy problems ,especially in development countries such as Iraq the important causes of outbreak of this disease are food and a water pollution with *salmonella typhi* and *paratyphi*

To determine the range of influence to both of Garlic juice and Apple Cider Vinegar on *Salmonella typhi* and *paratyphi* that isolated from patients serum whom clinically suspected typhoid fever and they have symptoms of this disease .

This study involved (strains of *Salmonella typhi* strains of *Salmonella paratyphi A* , strains of *Salmonella paratyphi B*). These strains were isolated from blood patients suffering from typhoid and paratyphoid fever in General Baquba hospital. These strains cultured on Brain heart infusion broth and subcultured on *Salmonella –Shigella* agar to isolate and identify *Salmonella typhi* and *paratyphi* bacteria by the standard biochemical and serological test with specific antiserum reaction .

Different concentrations of Garlic juice and Apple Cider were used such as () . These concentrations caused inhibition growth which increased with the increasing of concentrations but the inhibition more increased when we used the mix of Garlic juice and Apple Cider Vinegar in the same concentration and amount , the murder proportion of bacteria was in highest percentage .

The Garlic juice and Apple Cider Vinegar had distinct affect in bacterial inhibition growth in all concentration and this inhibition was more when both substances were mixed .

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