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The effect of aqueous extract of some fruit peels on microorganisms that cause diarrhea *in vitro* in Samawa and Rumaitha court

Thesis

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By

Fatima abdulkadem mayaa

(B. Sc. Biology 2013)

Supervised by

Assist. Prof. Dr.

Yassir Dakheel Kremsh Alasadiy

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Abstract

The current study Conducted for the period from 10/27/2014 for the month of October until 2015 / 4/26 for the month of April in the laboratory of postgraduate studies of Sciences /at Al- Muthanna University ,to investigate the causes of diarrhea , the reviewers for each of Rumaitha General Hospital , born & Children 's Hospital , Al-Hussein Teaching Hospital , during this period collection of 157 stool specimens for people with diarrhea .

then were examined by adirect smear and transplantation in culture medium , the results showed six groups of causes diarrhea included the parasite *Giardia lamblia* and parasite *Entamoeba histolytica* and included bacterial isolates *Escherichia coli* and *shiglla .spp*, and two types of *citrobacter* genus *Citrobacter freundi, Citrobacter koseri* and diagnosed other causes as *Rota virus* diarrhea by kit .

and the study included the development of parasite *Giardia lamblia* in the TYI-S-33 adapting medium and has proved successful , and also parasite development *Entamoeba histolytica* in the beef liver infusion medium after it has been experimenting with the use of plant extracts aqueous cold for each of the *Citrus sinensis* peels plant , *Citrus aurantium , Solanum melogena* with three concentrations (%0.5 , %0.75 , %1) and Shows that these extracts are effective in eliminating both parasites , and showed a concentration of %0.5 and the concentration of %0.75 effective in eliminating both parasites and also showed a concentration of %1 stronger effect in elimination of both parasites, It also found significant differences between different concentrations under the moral level ($p \leq 0.05$). II

It shows that cold aqueous extracts of both *Citrus sinensis* peels plant , *Citrus aurantium* , *Solanum melogena* peels plant, inhibitory effect clear (diameter inhibitory zone) in the growth of bacteria, *Escherichia coli* and *shiglla .spp* and both types of *citrobacter Citrobacter freundi, Citrobacter koseri* showed all of the concentration of %0.5 , %0.75 inhibitory effect on bacterial species and showed the effect of the concentration of %1 inhibition effect stronger on bacterial species , while %0.25 did not show any inhibitory effect on all species mentioned And it found significant differences between the concentrations under the moral level ($p \leq 0.01$)by Dunkin polynomial .

Also showed sensitivity test to groups of enterobacteriaceae (*Escherichia coli* and *shiglla .spp* and both types *Citrobacter freundi, Citrobacter koseri*) inhibitory effect of antibiotics (by measure the diameter of the inhibitory zone) the antibiotic Ciprofloxacin biggest impact inhibitory effective in the totals bacteria is causing diarrhea, followed by the gradual opposite effect bio Amikacin then Amoxycillin then Gentamicin then Tetracyclin followed Ceftriaxone, Piperacillin, either antibiotic of cefixime did not have any inhibitory effect of each bacterial species mentioned. then The median lethal dose account of plant extracts aqueous cold for each of the peel *Citrus sinensis, Citrus aurantium* , *Solanum melongena,* the median lethal dose of *Citrus aurantium* extract was (7.75) g/kg of body weight , and of *Solanum melongena* (7.25) g/kg of body weight , and with using the same concentrations of the *Citrus sinensis* extract not noticed deaths Or inactivity, loss of appetite signs That observed on other groups That have been dosage with Other extracts.