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## A Study on intestinal protozoa in calves in Ninevah governorate

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### Abstract

One hundred and sixty five fecal samples, collected from calves (1-12 months), with (75) and without (90) diarrhea, were examined for intestinal protozoal infection, using four diagnostic methods, direct smear, iodine staining, flotation method and modified Zeil Nelson stain. Results showed that the total rate of method intestinal protozoal infection was 54.5%. Three protozoal genera were identified. Their percentages were as follows: *Cryptosopodium* 52.2%, *Eimeria* 28.3%, *Giardia* 19.6% respectively. Singular and mixed protozoal infection were 51.1% and 48.9% respectively. While those showing sign of diarrhea and subclinical cases, the infection rate were 73.3% and 38.9% respectively. According to age, the rate of infection with intestinal protozoa was 89.7% in calves 1-2 months of age, the trend of infection was progressively decreased with increasing age to one year or more as it reached 15.6%.

Available online at <http://www.vetmedmosul.org/ijvs>

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*Giardia* % *Eimeria*  
*Giardia* % , *Cryptosporidium* ( )  
% , *Eimeria* ( )  
*Giardia* ( )  
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*Giardia*

Pathogen	Effect Size (%)	95% CI (%)
<i>Cryptosopodium</i>	-1.0	-3.0 to 1.0
<i>Eimeria</i>	-0.5	-2.5 to 1.5

.P<0.001  
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% ,

.P<0.05

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<i>Giardia</i>	<i>Eimeria</i>	<i>Cryptosopodium</i>
% ,	% ,	% ,
% ,	% ,	% ,
% ,	% ,	% ,

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<i>Cryptosopodium</i> <i>Eimeria</i>	<i>Giardia</i>	<i>Eimeria</i>	<i>Cryptosopodium</i> <i>Giardia</i>	<i>Cryptosopodium</i> <i>Eimeria</i>
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*Cryptosopodium*

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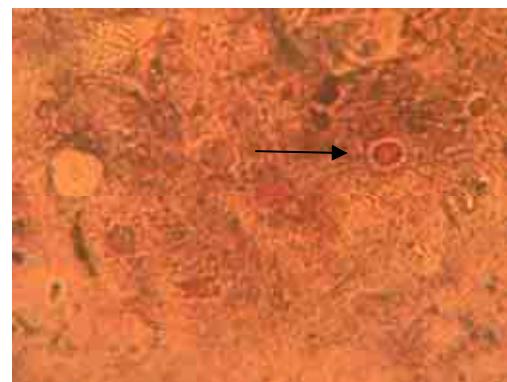
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*Cryptosopodium* sp.

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% , *Eimeria*

*Eimeria*

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*Giardia*

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*Giardia*

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*Giardia*

%

*Eimeria* sp.  
.100X

% , *Giardia*      *Cryptosopodium*  
( ) % ,

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% , ( )



*Giardia* sp.  
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### *Giardia*

*Cryptosporidium*    *Eimeria*

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*Cryptosporidium*

( *Eimeria*    *Giardia*    *Cryptosporidium* )

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