



دراسة وبائية لجراثيم السالمونيلا المعزولة من الماعز في بعض محافظات وسط العراق

\*\* \*  
 \*  
 \*\*

) ( 1440

%2.37  
 (*S.hato, S.typhimurium, S.hadar, S.enteritidis*)  
*S.typhimurium* (% . )  
 % . %  
 (%4.9) %  
 ( ) ( )  
 (% . ) %  
 .% .

% . % . % .  
 .% .  
 % .  
 (% . ) %

(Cefotaxime, Chloramphincol, Trimethoprim  
 .(Ampicillin) Sulfamethaxazole)

# EPIDEMIOLOGICAL STUDY ON SALMONELLA SPP ISOLATED FROM GOAT IN SOME PROVINCES IN MIDDLE OF IRAQ

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### Abstract

This study aimed to isolate salmonella bacteria from the goats in the four government in central Iraq (Babylon, Karbala, Najaf, Baghdad), where the number of animals examined 710 head goats in the fields and slaughter houses, 350 samples of feces from 350 animals from the

fields while the number of animals at slaughter houses 360 collected from them 360 fecal samples and 1440 samples from different organs (the gall bladder , the intestine, mesenteric lymph nodes and spleen) for the purpose of bacterial isolation serological diagnosis.

fifty one (51) *Salmonella* isolates were isolated from the feces and organs at a percentage (2.37%), and was returning to the four serotypes (*S.hato*, *S.typhimurium*, *S.hadar*, *S.enteritidis*), serotype *S.typhimurium* constitute the highest percentage of infection (70.83%).

Percentage of infection in field animals 2.29% and highest in Baghdad (4%) and in slaughter house animals the percentage was 4.44% and highest in Babylon (4.9%), The results showed that during six months of study on the goats examined at slaughter houses, and seven months on goats examined in the fields clear difference, and the highest percentage 8.3% in slaughter house and 4% in fields appeared in march.

One hundred and ninety three (193) examined animals showed different symptoms (diarrhea , respiratory signs , increased body temperature dullness or more than one symptom) ,but only 11 animals were found infected with *Salmonella*, the diarrhea constitute high percentage (5.08%), while 517 animals appeared normal (without signs). However, 13 animal gave positive results for *Salmonella* which constitute 2.52% .

In animals from slaughter houses the percentage of infection were varied in examined organs and faeces, in bile duct the percentage was 3.06%, 2.57% for each of the spleen and mesenteric lymph nodes and 1.944% from intestine and feces ,while the percentage in feces of field animals showed 2.285%.

There was no significant difference between males and females, the percentage of infection recorded in females 3.82%, whereas, in males 2.90%. According to the age the infection percentage was more in animals below six months of age 5.59%.

The sensitivity test of the species against antibiotics was studied, the results showed that they are sensitive to (cefotaxime, chloramphenical, trimethoprime sulfamethaxazole, and must species were resistant to ampicillin.

.[ ] (Salmonellosis)

[ ]

[ ] Nabut

[ ] abdul-ghani,

.[ ]

-. :  
 .( ) (Septicemic form)  
 (Acute enteritis form)  
 S.S. agar  
 Xylose (Brilliant green agar) (Subacute enteritis form)  
 .Lysine Deoxycholate (XLD) .[ ] (Chronic enteritis form)  
 .  
 (Risk  
 group III)  
 -:  
 .[ ] ( )

**-. Api20E**

Api20E  
 .[ ] (Bio Merieux)  
 -:  
 [ ] Baure  
 ( )  
 (Hi Media)  
 .[ ] Coles  
*E.coli*

جدول رقم 1: يوضح المضادات الحيوية المستعملة في اختبار الحساسية لجراثيم السالمونيلا المعزولة

(mm)					
S	I	R			
-			10	Am	Ampicillin
-				CF	Cephotaxime
-				C	Chloromphenicol
-				TE	Tetracycline
-				NA	Nalidixic acid
-				CN	Gentamicine
-				STX	Trimetheprime sulfamethaxazol

**(Serological diagnosis)**

(Slide agglutination test)  
 (H antigen)  
 (Bio rid) (O antigen)  
 [ ] (Collins & Lyne)

2007 – 2007  
 .[ ] Brenner,

Chloromphenicol, Tetracycline, Nalidixic acid,  
Ampicillin, Cefotaxime, Gentamycin,  
Trimethoprime- Sulfamethaxazole

( )

TSI  
(Serotyping)

P>0.05

Cefotaxime

( )

Chloromphenicol

( ) Ampicillin

:

%		%		<i>S.typhimurium</i>
%		%		<i>S.hadar</i>
%		%		<i>S.enteritidis</i>
%		%		<i>S.hato</i>
%		%		

TSI

H<sub>2</sub>S

(Api 20E)

[ ] Brenner,

H&O polyvalent )

(Standerd Antisera

%

( ) %

/

: -

% *S.typhimurium*

% 2.06

%

P>0.05

.% . : -  
 P>0.05 )  
 (%  
 % . % .  
 :

(2) <i>S.hato</i>			(8) <i>S.hadar</i>			(6) <i>S.enteritidis</i>			(35) <i>S.typhimurium</i>			المضادات البكتيرية
R	I	S	R	I	S	R	I	S	R	I	S	
0	0	2	0	0	3	0	6	0	2	18	10	Tetracycline
0%	0%	100%	0	0%	37.5%	0%	100%	0%	0.71%	1.42%	42.85%	
2	0	0	0	7	1	3	3	0	7	9	9	Gentamicine
100%	0%	0%	0%	87.5%	12.5%	0%	0%	0%	20%	20.71%	54.28%	
2	0	0	6	0	2	6	0	0	12	10	8	Ampicilline
100%	0%	0%	70%	0%	20%	100%	0%	0%	34.28%	42.85%	22.85%	
2	0	0	0	0	8	0	2	4	0	2	33	Cefotaxine
100%	0%	0%	0%	0%	100%	0%	33.33%	66.66%	0%	0.71%	94.28%	
2	0	0	0	1	7	0	0	6	4	3	28	Trimthprime Sulphonethozol
100%	0%	0%	0%	12.5%	87.5%	0%	0%	100%	11.43%	8.57%	80%	
2	0	0	0	0	8	0	0	6	0	0	30	Chlromphinicol
100%	0%	0%	0%	0%	100%	0%	0%	100%	0%	0%	100%	
0	0	2	3	1	4	3	3	0	0	6	29	Nalidixic acid
0%	0%	100%	37.5%	12.5%	0%	0%	0%	0%	0%	17.14%	82.85%	

:R :I :S

%				%			
2.37							

%				
0%				
0%				
0%				
0%				
0%				

= (X<sup>2</sup>)

%					
0%					
0%					
0%					

= (X<sup>2</sup>)

P>0.005

( )

.%

:

( )

:

%				
% .				
% .				
% .				
% .				
% .				
% .				
% .				

= (X<sup>2</sup>)

:

% .				
% .				
% .				
% .				
% .				
% .		517		
%3.38				

انماط السالمونيلا المعزولة	بعد الذبح				قبل الذبح	رقم الحيوان
	الامعاء	طحال	غدة لمفاوية مساريقية	كيس الصفراء	البراز	
<i>S.typhimurium</i>	+	-	+	+	+	١
<i>S.typhimurium</i>	+	+	-	+	-	٢
<i>S.typhimurium</i>	-	-	+	+	+	٣
<i>S.typhimurium</i>	-	+	-	+	-	٤
<i>S.typhimurium</i>	-	-	+	+	-	٥
<i>S.typhimurium</i>	+	+	-	+	+	٦
<i>S.typhimurium</i>	-	+	+	+	-	٧
<i>S.typhimurium</i>	-	-	-	+	-	٨
<i>S.hato</i>	-	+	-	+	-	٩
<i>S.enteritidis</i>	+	-	-	+	+	١٠

)

( ) (

(% . )

(% . )

% .

% .

*S.hato*  
P>0.05

<i>S.hadar</i>	-	+	-	+	-	۱۱
<i>S.hadar</i>	+	-	+	-	+	۱۲
<i>S.hadar</i>	-	+	+	-	-	۱۳
<i>S.enteritidis</i>	+	-	+	-	+	۱۴
<i>S.typhimurium</i>	-	+	+	-	-	
<i>S.typhimurium</i>	+	+	+	-	+	

. = (X<sup>2</sup>)

*S.hato* % .

% .

*S.hato*

P>0.05

.%

% .

% .

*S.enteritidis*

:11

.( )

:

<i>S. hato</i>	<i>S. hadar</i>	<i>S. enteritidis</i>	<i>S.typhimurium</i>				
0	1	2	7	%۲.۹۰	۱۰	۳۴۴	
1	3	0	10	%۳.۸۲	۱۴	۳۶۶	
1	4	2	17	%۳.۳۸	۲۴	۷۱۰	

:۱۲

% .	%	% .							
% .	%	% .							
% .	%	% .							
% .	%	% .							
% .	%	% .							
%	%	%							
%	%								
% .	% .	% .							

<i>S.hato</i>	<i>S.hadar</i>	<i>S.enteritidis</i>	<i>S.typhimurium</i>				
0	1	1	6	% .			
0	2	1	8	% .			-
1	1	0	3	% .			

11

% .

*S.enteritidis*

% .

[ ] [ ]  
*S.enteritidis S.typhimurium S.wirchow S.hadar*  
*S.infants*

1	4	2	17	% .			
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P>0.05

-:

-:

[ ] Brenner  
 [ ]

Cefotaxime .[ ]

-:

Chloromphenicol

/

[ ]

*S.typhimurium, S.hadar, S.enteritidis,*

*(S.hato*

*(% . ) S.typhimurium*

Ampicillin

[21]

*S.typhimurium*

*.S.enteritidis*

[ ] Cruchaga  
*S.typhimurium*

[ ]

Das

*S.enteritidis*

[ ]

[ ]

*S.typhimurium S.enteritidis*

[2]

John

*S.typhimurium*

*S.hadar*

[ ]

Usera

Papadopoulou

[ ]

Matsushita, [3]

. [ ]

%4.17

*S.hato*

[ ]

[ ]



.

-:

. [ ] % .

-: % .

% . [ ]

.% . [ ]

%2.52 % .

[ ]

. [ ] Nabbut %

[ 3] Radke [ ] Galland [ ]

% .

- % . [ ]

.( )

)

.(

[ ]

. [ ]

[34] Marie and Bruce .

. [ ]

)

-: % -% . (

(% . -% . )

[ ]

[ ] . [ ]

[ ]

[ ]

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