

***Campylobacter jejuni***

(2004/11/7 2004/8/21 )

(*C.jejuni*) *Campylobacter jejuni*

2002

.2003

Preston *Campylobacter* blood-free medium

S

pleomorphic

% 1

° 25

° 42

Nalidixic acid

% 1.5

.Cephalothin

**Isolation and Identification of *Campylobacter jejuni* from Diarrhoeal Cases of Children in Mosul City**

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**ABSTRACT**

The study include the isolation of *Campylobacter jejuni* (*C.jejuni*) from children (aging between after birth to two years) with watery or bloody diarrhea in the period

from September 2002 to February 2003. The bacterium was identified depending on succession in growth on selective medium: Preston Campylobacter blood-free medium and microscopical examination which revealed that it is gram negative pleomorphic, curved bacillus, S-shaped and gull-winged. Biochemical tests showed its positive reaction for catalase, oxidase and its ability to hydrolyse hippurate and indoxyl acetate but it was negative for urease and lipase. This bacterium can grow at 42° C while it failed to grow at 25° C and it tolerates 1% glycine while it can not grow in 1.5 % NaCl. Additionally the bacterium was sensitive to Nalidixic acid but resistant to Cephalothin.

*Campylobacter*

*C. jejuni*

(Saenz et al., 2000)

gull-wing (S)

° 42 ° 37

H<sub>2</sub>S

Nalidixic acid

Cephalothin

*C. jejuni*

*C. jejuni* sub *jejuni*

(Collee et al.,1996; Blaser, 1999)

sub *doylei*

*C. jejuni*

*C. jejuni*

152

Cary-Blair transport media -

Preston Campylobacter Blood-free selective medium

° 42



	H <sub>2</sub> S		IMViC	
	Koneman et al., 1997; Prescott et al., ) Glycine			.(1996
			:	
		.(Koneman et al., 1997) IMViC		
	(13)		(206)	
	<i>C. jejuni</i>	(9) (% 6.3)		<i>Campylobacter</i>
Campylobacter	(% 69.2)			(% 4.36)
		(% 1.94)	<i>C. coli</i>	(4)
			.Campylobacter	(% 30.8)
(Church et al., 1995)		<i>C. jejuni</i>		
	294	% 17	<i>C. jejuni</i>	51
Salih	% 10	<i>C. jejuni</i>		
			1994	Al-Saad
	% 6.2		(Saenz et al., 2000)	
	537			8616
		<i>C. coli</i>		<i>C. jejuni</i>
Goossens	1991	Fang	.% 0.67	
			1995	Giesendorf

Church et al., ) *E. coli* (1)  
 .(Bryant et al., 1989) (1995)

.(Ahren et al., 1990)

:1

%				
6.32	13	Campylobacter spp.	194	152
19.48	40	<i>E. coli</i>		
16.50	34	Proteus		
8.73	18	Pseudomonas		
7.76	16	Enterobacter		
7.28	15	<i>E. faecalis</i>		
6.79	14	Klebsiella		
5.82	12	Citrobacter		
4.36	9	Salmonella		
3.39	7	Providencia		
3.39	7	Morganella		
1.94	4	Staph. Spp.		
1.45	3	<i>Y. enterocolitica</i>		
0.48	1	Serratia		
0.48	1	Shigella		
5.82	12	Candida spp.	12	
100	206		206	

:

Preston Campylobacter blood –free medium *C. jejuni*

Koneman et al., 1997; Baron and Fingold, )  
 .(1) (1990; Merino et al., 1986)

*C. jejuni* .(2)

curve = campylo

gull-wing

(s)

rod = bacter

.(3)

shape

*C.jejuni*

(2)

H<sub>2</sub>S

*C.jejuni*

:2

Tests	
+	Catalase test
+	Oxidase test
+	Hippurate hydrolysis
+	Indoxyl acetate hydrolysis
-	Urease test
-	Lipase test
-	( )
+	Motility test
-	° 25
+	° 37
+	° 42
-	TSI H <sub>2</sub> S
-	%1.5
+	%1
S	Nalidixic acid
R	Cephalothin
+	
-	IMViC

Positive : +

Negative : -

Sensitive : S

Resistant : R

° 25

%1.5

° 42 ° 37

thermophiles

%1

1987 , )

.(Koneman et al., 1997; Holt et al.,1994;

*C. jejuni*

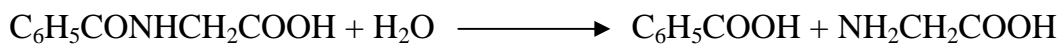
(4)

.1980 Harvey

.(5)

:

Hippuricas



Hippuric acid

Benzoic acid

Glycocoll  
(glycine)

66-44

1975

Hwang

1974

Facklam

° 37

%1 <sup>3</sup> 0.5 B

Glycine

10

.(5)

(IAH)

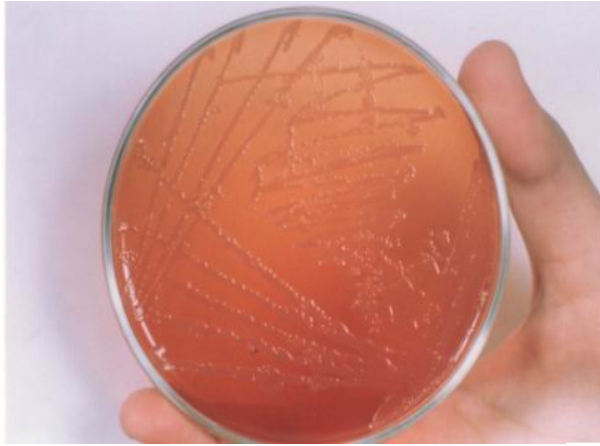
*C. jejuni*

10

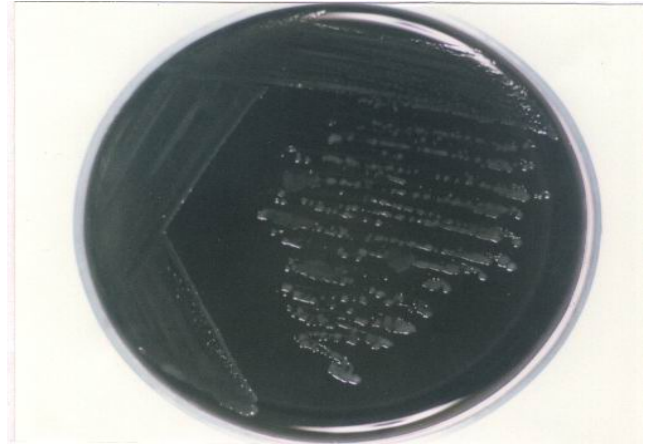
(6)

IAH

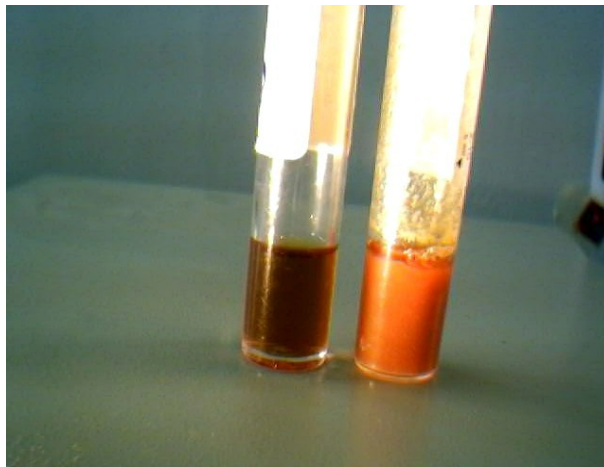
Campylobacter



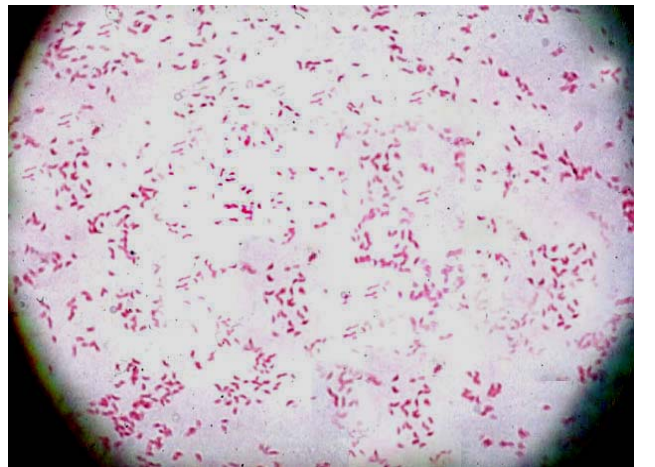
2



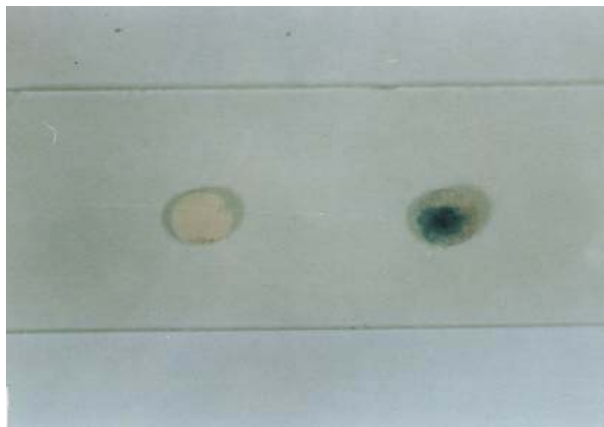
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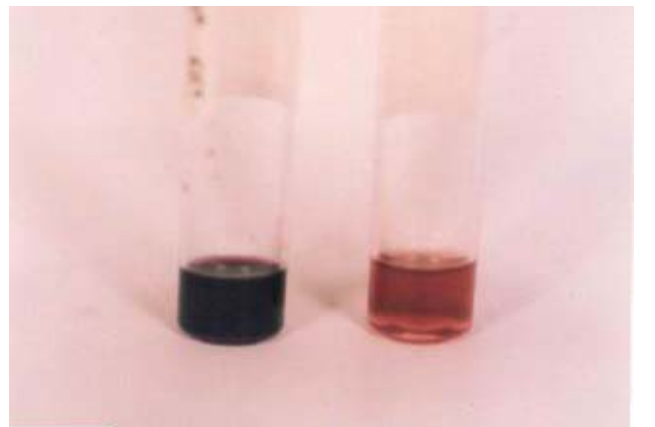
4



3



6



5

<i>C.jejuni</i>	(2)	<i>C.jejuni</i>	(1)
	(4)	<i>C.jejuni</i>	(3)
	(6)		(5)



*C. jejuni*

Nalidixic acid

Cephalothin

Nalidixic

acid

Cephalothin

.(Melo and Pechere, 1990)

*C. jejuni**C. jejuni*. Subsp. *jejuni*

Cephalosporins

*C. jejuni* subsp. *dolei*

.(Koneman et al., 1997 )

.1987

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