

Mycoplasma pneumoniae

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Fluid Sucker (279)

(100)

(70)

(109)

. (Methlene Blue – Glucose Diphasic Medum)

Mycoplasma pneumoniae

(% 6.1)

(% 10.2)

Tetracyclin, Erythromycin, Chloramphenicol

Ampicillin, Rifampicin, Vancomycin

Gentamycin

. Trimethoprim

Study on *Mycoplasma pneumoniae* isolated from respiratory tract of neonates in Mosul City

Najla'a A. Alnaeimy

Amera M. Alrawy

Department of Biology

College of Science

Mosul University

ABSTRACT

279 samples of aspirate from respiratory tract infected neonates has been collected by Fluid Sucker including 100 samples from full term neonates, 109 samples from premature births and 70 samples from healthy neonates (control).

The samples were cultured in Methylene Blue - Glucose Diphasic Medium.

Isolation and identification of *Mycoplasma pneumoniae* were confirmed by Morphological & Biochemical test , sensitivity to antibiotics were also studied. The results showed that *Mycoplasma pneumoniae* has been isolated from full term , premature neonates by 6.1 % and 10.2 % respectively it was isolated from control samples. The outcomes of sensitivity and resistance for antibiotics showed that this bacteria was sensitive to Gentamycin , Tetracyclin , Erythromycin and Chloramphenicol while it was resistant to Vancomycin , Rifampicin , Ampicilin and Trimethoprim .

M. pneumoniae

(2)

. (Koneman et al ., 1997 ; Clyde , 1993)

. (Kleemola , 1993 ; Foy , 1993)

(Razin & Jully , 1983 ; Dorigo - Zetesma ., Mollicutes

(15)

(150)

2000)

. (Koneman et al ., 1997)

RNA DNA

M. . (Nester et al ., 1998 ; Broughtom , 1986) .

pneumoniae

(Dorigo - Zetsma ., 2000 ; Buchanan et al ., .

. 1974)

(Collee et Gemsa stain Dienes stain

. al ., 1996 ; Cruckshank et al ., 1975)

M. pneumoniae

. (Taylor – Robinson & Bebear , 1997 ; Mitruk & Bonne , 1976) .

7.8

35-32

Mycoplasma

(Garrod et al ., 1981)

-: (279)

) Fluid sucker

(100) ◀

(Marobney

(109) ◀

. Control

(70) ◀

nostril tube

³ (2)

Sterile Syringe

Cannula

. (MB-GD) medium

Cultural media

Methylen Blue – Glucose Diphasic Medium

M. pneumoniae

(Koneman et al ., 1997)

10) Pepton (50) Brain heart infusion : **Mycoplasma agar** (A)

. (14) Purified agar (5) Nacl (3 (70)

: (50)
Yeast extract-serum – 3 (30) -

3 (1000) (250) -

(1) (8)

(20) 3 (10) -

– (2:1) 3

3 (0.5) 3 (0.1) . (-20)

. 3 (3) 3 (0.25) 3 (2)

(7.8)

3 (1)

(50) Brain heart infusion : **Mycoplasma broth** (B)

. (5) Nacl (10) Pepton

(60) 3 (140)

– 3

3 (4.0) 3 (1.0) 3 (0.2) -

. 3 (0.5) 3 (6.0)

3 (2) (7.8)

. (Koneman et al ., 1997)

(Oxoid) Mycoplasma broth base

Basic media

(25.5)

(Oxoid) Supplement

³ (1000) Mycoplasma broth base

³ (80) . (7.8)

Supplement (50) (15) (121)

(Koneman et al ., 1997 ; & .

³ (20)

Cruckshank et al ., 1975)

(Oxoid) Mycoplasma agar base

³ (1000) Mycoplasma agar base (35.5)

³ (80)

Supplement (50) (7.8)

.(Koneman et al ., 1997)

Mycoplasma Glucose Agar medium

- : (Koneman et al ., 1997)

- ³ (30) Mycoplasma agar ³ (70)

- :

. ³ (3) ³ (0.25) ³ (2)

(7.8)

(Koneman et al ., 1997) .

Modified Dienes Stain

:

: **Stock solution (A)**

(0.25) Na₂CO₃ (10.0) Maltose (1.25) Azure II (2.5) Methylen blue

. ³ 100

: **Working solution (B)**

A

2-(P-iodo phenyl) -3- (Koneman et al., 1997 ; Collee et al., 1996). A

nitrophenyl -5-phenyl tetrazolium chloride

.(Koneman et al ., 1997 ; Cruickshank , 1975)

M. pneumoniae ³ 0.2
(MB-GD)
(30-8) 35
(5-1)

(Koneman et al ., 1997) .

M. pneumoniae

Reichert Neovar

:
:

Microscope

:

:

(Koneman et al ., 1997)

Dienes stain working solution ³ (1)

(% 95) ³ (1)

M.

pneumoniae

Tetrazolium reduction test

³ (2)

(60-30) (35)

(Koneman et al ., 1997 ; Johnson & Smith , 1976)

Hemadsorption test

(Koneman et al ., 1997 ; Collee et al ., 1996)

³ (2)

/ (3000)

phosphate buffer salin

³ (100)

³ (0.2)

(10)

(%1)

(35)

Fermentation of carbohydrate

(MB-GD)

M. pneumoniae

medium

. (Koneman et al ., 1997)

Blood hemolysis

Mycoplasma agar base

(% 5)

Supplement

(7-5) (37)

Antibiotic sensitivity test

M. pneumoniae

(/)			(/)		
30	N	Neomycin	30	C	Chloramphenicol
10	Am	Ampicillin	10	S	Streptomycin
30	CTX	Cefotaxime	30	L	Lincomycin
30	TE	Tetracyclin	30	VA	Vancomycin
15	E	Erythromycin	30	NA	Nalidixic acid
25	TMpS mx	Trimethoprim- sulfamethoxazole	10	GM	Gentamycin
			30	RA	Rifampicin

Oxoid

Bauer-

Supplement

Mycoplasma agar base

(Bauer et al., 1966)

Kirby

. (Vandepitte et al., 1991)

(MB-GD)

Mycoplasma Glucose Agar medium (MGA)

(1)

(Dorego-zetsme ,

M. pneumoniae

. 2000 ; Kleemola , 1993 ; Bucharanet et al., 1974)

M. pneumoniae :1

highly

pleomorphic

(Nester et al ., 1998 ; Kleemola , 1993) .

M. pneumoniae

. (2) (Koneman et al ., 1997 ; Velleca et al ., 1980)

:2

(3)

M. pneumoniae

2- .

M. pneumoniae

3- nitrophenyl -5-phenyl tetrazolium chloride-(p-iodophenyl)

(Koneman et al ., Formazan

. 1997 ; Johnson & Smith , 1976)

:3

. (Koneman et al ., 1997)

. (MB-GD)

M. pneumoniae

. (Taylor-Robinson & Furr,1999;Koneman et al.,1997)

(4)

M. pneumoniae

(B-hemolysis)

. (Baron & Finegold , 1990)

:4

M. pneumoniae (1)

M. pneumoniae :1

R	Rifampicin	S	Chloramphenicol
S	Neomycin	R	Streptomycin
R	Ampicillin	R	Lincomycin
R	Cefotaxime	R	Vancomycin
S	Tetracyclin	S	Nalidixic acid
S	Erythromycin	S	Gentamycin
R	Trimethoprim-sulfamethoxazole GM		

Nalidixic , *M. pneumoniae*
 Chloramphenicol , Erythromycin , Tetracyclin , Neomycin , Gentamycin
 Rifampicin , Streptomycin , Trimethoprim-sulfamethoxazole ,
 . Ampicillin , Vancomycin , Lincomycin , Cefotaxime
M. pneumoniae

. (Taylor-Robinson & Bebear , 1997 ; Koneman et al ., 1997 ; Garrod et al ., 1981)

. (Nancy et al ., 2000 ; Himmelreich et al ., 1996 ; Garrod et al ., 1981)

1997 Taylor-Robinson & Bebear

Gentamycin , Tetracyclin , Erythromycin , Nalidixic acid , Neomycin ,
 Trimethoprim-sulfamethoxazole , Cefotaxime , Chloramphenicol
 Ampicillin Vancomycin , Rifampicin
 . Streptomycin Lincomycin
M. pneumoniae
M. pneumoniae
 (% 6.1) *M. pneumoniae*

M. pneumoniae : 2

()					
%		%		%	
0	0	10.2	15	6.1	7

		<i>M. pneumoniae</i>
	(% 10)	(Baculard , 1996)
<i>M. pneumoniae</i>		(Rstawicki et al ., 1998)
% 10.2		<i>M. pneumoniae</i>
(% 18-5)	<i>M. pneumoniae</i>	(Edward et al ., 1995)
	(Al-Mazori , 1983)	
		<i>M. pneumoniae</i>

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