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Isolation of listeria monocytogenes and determination of its antibody titers in women suffering from abortion

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*Abstract

Background: Listeria moncytogenes is an important cause of meningitis, septicemia, stillbirth, neonatal sepsis and spontaneous abortion.

Óbjective: The purpose of this study was to detect Listeria monocytogenes by serologic and bacteriologic methods in women suffering from abortion.

Methods: 120 specimens including placenta or curretage material were cultured on blood agar and palcam agar and kept at 37° for 48-72 hrs. Also Trypticase Soy Broth (TSB) were used as subculture media at 4° for a period of 6 months. Colonies were identified using several biochemical tests. 120 sera from above patients and 60 sera from control group were also used for the investigation of Listeria specific antibody by indirect immunofluorescence method.

Findings: 2.5% of specimens were positive bacteriologically, that had significant relationship with the serologic results (P<0.05). The results of serologic study showed that 25 case of test group, and 6 cases of control group had an antibody titer of $\frac{1}{160}$ against this microorganism. In test group, of 25 patients who had $\frac{1}{160}$ titer, 12 patients, and in control group,

of 6 patients who had $\frac{1}{160}$ antibody titer, 2 patients had, $\frac{1}{320}$ antibody titers. Therefore, in test group 20.83% had a titer

of $\frac{1}{160}$ and 10% had a titer of 1/320. In control group the rates of the above antibody titers were 6.66% and 3.33%

respectively. Overall ratio was 3.2. Also there was significant difference between antibody titer in test and control group (P<0.02). All the patients who had positive culture of this bacterium also had a titer of $\frac{1}{320}$ antibody against this

Conclusion: Listeria moncytogenes is an important cause of abortion, and all of the patients with positive culture of this bacterium had a $\frac{1}{320}$ antibody titer. The cold enrichment method is suggested as a suitable method for the isolation of this microorganism.

Keywords: Listeria Moncytogenes, Meningitis, Septicemia, Abortion, Mortality, Newborn

1378 120: 48 45 14 72 Trypticase Soy Broth 120 60 (p<0/05)2/5% 25 160 160 10% 20/8% 2 12 320 (p<0/02).(OR=3/2)3/33% 6/6% 320 160 320

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0	0	(6/7%) 4	(20/8%) 25	(%)	$>\frac{1}{160}$
0	(2/5%) 3	4 2	25 12	(%)	$\frac{1}{320}$

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* $\frac{3}{2} \frac{1}{320}$

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 $\frac{1}{160}$

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