



MD

MD

MD

* MD

MD

// :

// :

of SID

CRP,CBC,IL6

()

()

IL6

(/ pg/ml)

()

(g/ml)

IL6 :

IL6> pg/ml . %

% /

pg/ml

IL6 cut off :

.(%

%

)

%

%

CRP> pg/ml . NPV=% / PPV=% % % /

CRP> pg/ml IL6>

:

:

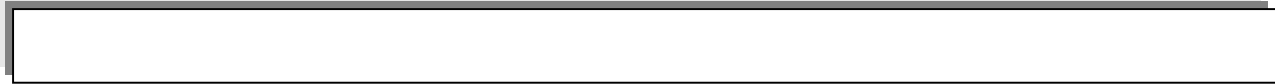
()

*



CRP)
CSF
()
()
()
()
IL6
CRP
()
IL6
CRP,CBC
IL6
SPSS
IL6
() / ()

Archive of SID



(% /)
 (% /)
 (E.Coli) CSF (% /)

P-value				
/	/ ± /	±	± /	() XP±SD
/	/ ± /	/ ±	/ ± /	() XP±SD
/	/ ± /	/ ± /	/ ± /) (XP±SD

ESR
 CRP (%)

(%) (% /) (% /) (% /)
 (% /) (% /)
 / (% /) (% /)

IL6 : IL6 (% /) :
 IL6 (% /) (% /)
 IL6 () / (% /) (%)
 IL6 (/) / (% /) (% /)
 p= /) / / (% /) (% /)
 () : (/)

E.coli % / (% /) (% /)
 % / %



() IL6 % IL6 -
()

TNF
IL6,8
CRP.()

IL6 pg/ml	CI%	
/ - /		
/		*
/	-	**

* Pvalue= /

()
IL6
** Pvalue= /

*** Pvalue= /

CRP

()

(%) : CRP IL6
IL6>11 CRP
IL6> CRP

CRP, IL6 % /

IL6

%

%

%

(%)

(% /)

(% /)

(%)

(%)

(% /)

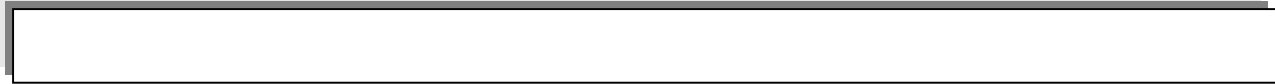
(% /)

(% /)

(% /)

(% /)

()

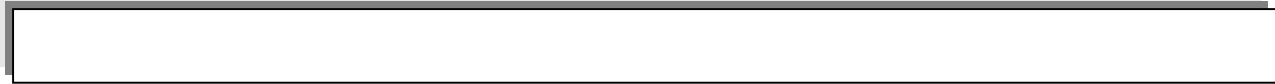


ESR (p= /)
. ()
CRP (p< /)
% (p= /)
CRP>6pg/ml. ()
CRP % . % %
CRP () CRP % / % /
CRP (%) (% /) (% /)
CRP ()
CRP % %
() CRP IL6 ()
() CRP IL6 IL6 ()
() %
IL6 ()
(p= /) / ()
(p= /) / IL6
(p< /) pg/ml
(p≤ /)
CRP IL6
ESR ()
(p= /)



IL6 CRP IL6
 pg/ml pg/ml
 .() pg/ml IL6
 pg/ml IL6
 .() pg/ml
 IL6 CRP IL6
 / IL6 cut off
 pg/ml IL6 Cut off NgPc
 .()
 % % IL6>
 NPV=% / PPV=%
 % cut off
 PPV=% / NPP=% % /
 IL6
 % / % / NPV= % PPV= %
 % / IL6<
 % IL6 %
 . () () NEC
 %) CRP IL6 IL10 IL6
 .() (%)
 (%) IL6 NPV=%
 () IL6
 () CRP
 .()
 CRP,IL6 pg/ml
 IL6 > pg/ml ,CRP> pg/ml .(p= /)

¹ Ngpc



pg/ml		IL6> pg/ml ,CRP>	
IL6	CRP,IL6	PPV= %	NPV= %
pg/ml	CRP	()	()
NICU	IL6	()	()
	CRP,IL6	()	()
		%	%

References:

- 1- Fanaroff AA, Martin RJ. **Neonatal perinatal medicine**. 8th ed. Mosby; 2006; 2: 791-799.
- 2- Macdonald MG, Seshia MM, Mullet MD, et al. **Neonatal pathophysiology and management of the newborn**. 6th ed. J.B. Lippincott Company; 2005: 1236-51.
- 3- Behrman RE, Kliegman RM, Jenson HB. **Nelson textbook of pediatrics** 17th ed. WB sunders Company; 2004: 720-730.
- 4- Ballot DE, Magudmana MO, Cooper PA, et al. Serial Interleukin 6 measurments in the early Diagnosis of the neonatal sepsis. **Journal of tropical pediatrics** 2000; 46: 267-271.
- 5-Schutz C, Rott C, Temming P, et al. Enhanced interleukin – 6 and interleukin-8 synthesis in term and preterm infants. **pediatr Res** 2002 ;51:317-22.
- 6-Ng PC, LI K, Wong Rpo, et al. Proinflammatory and anti-inflammatory cytokine responses in preterm infant with systemic infection. **Arch Dis child fetal neonatal Ed** 2003; 88: 209-13.
- 7-Mathai E, Christopher U, Mathai M, Kumar A, et al. IS C- Reactive protein level useful in Differentiating infected from uninfected neonates a mong these at risk of infection? **Indian pediatrics** 2004; 41 (17): 895-900.
- 8- Messer J, Eyer D, Donato L, et al: Evaluation of interleukin – 6 and soluble receptors of tumor necrosis factor for early diagnosis of neonatal infection. **J pediatr** 1996; 129: 574-80.
- 9- Doellner H, Arntzen KJ, Haereid PE, et al: Interleuin 6 Concentration in neonates evaluated for sepsis. **J pediatr** 1998; 132: 295-299.
- 10- Harding D, Dhamrait S, Millar A. Is interleukin -6 174 Genotype Associated with the developmental of septicemia in preterm infant?. **Pediatrics** 2003; 112(4): 800-803.
- 11- Laborada G, et al. Diagnostic value of cytokines and CRP in the first 24 hours of neonatal sepsis. **Am J Preinatal** 2003; 20(8): 491-501.

- 12- Dollner H, vatten L, Austgulen R et. Early diagnostic marker for neonatal sepsis: CRP, IL6, soluble tumor necrosis factor receptor and soluble adhesion molecule's. **J Clin Epidemiol** 2001; 54 (12): 1251-7.
- 13- Paurcyrous M, Bada HS , Korones SB, et al. Significance of Serial C-reactive protein responses in neonatal infection and other disorder. **Pediatrics** 1993; 92:431-5.
- 14- Monneret G, Labuane JM, Isaac C, et al. Procalcitonin and C-reactive protein level in neonatal infection. **Acta paediatr** 1997; 86:209-12[Medline]
- 15- Ng PC, Cheng SH, Chui KM, et al " Diagnosis of late onset neonatal sepsis with cytokines, adhesion molecules, and c- reactive protein in preterm very low birthwight infants. **Arch dis child fetal neonatal Ed** 1997; 77:221-227.
- 16- Kawamura M, Nishida H. The usefulness of serial C-reactive protein measurment in managing neonatal infection. **Acta paediatr** 1995; 84:10-13. [medline]
- 17- Ng PC. Diagnostic markers of infection in neonates. **Arch Dis Child fetal and neonatal** 2004; 89: 229 - 45.
- 18- Romagnoli R. Plasma Level of Interleukin -6 and Interleukin -10 in preterm neonat evaluate for sepsis. **Eur. J Pediatr** 2001; 160: 345-50. [medline]
- 19- Krueger M. Nauch MS, sang s, et al. Cord blood levels of Interleukin-6 and Interleukin -8 for Immediate diagnosis of early -onset infection in premature infant. **Biol Neonata** 2001; 80(2): 118-23.
- 20- Martin H, Olander B, Norman M, et al. Reactive Hyperemin and IL6, IL8 and TNF in the diagnosis of early neonatal sepsis. **Pediatrics** 2001; 108(4): 61-8.
- 21- Buck C, Bundschu J, Gallati H, et al. Interleukin -6: a sensitive parameter for the early diagnosis of neonatal bacterial infection. **Pediatrics** 1994; 93: 45-8.
- 22- Janata J, Stranak J, Belohlavkorva S, et al. Interleukin -6, procalcitonin, C- Reactive protein and the Immature to total neutrophil ratio (I/T) in the diagnosis early onset sepsis in low birth weight neonates. **Ceska Gynecol** 2002; 65 (1): 29-33. [medline]
- 23- Dollner H, vatten L, Austgulen R. Early diagnostic marker for neonatal sepsis comparing C- reactive protein, interleukin-6, soluble tumor necrosis factor and soluble adhesion molecules. **J clin Epidemiol** 2001; 45: 1251-7.

Archive of SID