



VI. DAFTAR PUSTAKA

- Arias F. 1993. Premature rupture of membranes, *dalam Practical guide to high-risk pregnancy and delivery*, 2nd ed, Mosby year book, St. Louis, Missouri
- Aggett P.J and Comerford J.G.1995. Zinc and Human health. *Nutrition reviews* , 53 : S16-S21
- Atahyde N, Edwin SS, Romero R et al.1998 A role for matrix metalloproteinase-9 in spontaneous rupture of the fetal membranes. *Am J Obstet Gynecol*, 179 : 1248-53.
- Carebo L. Premature rupture of membranes.ENTOG.Spain. (<http://www.med.uni-giessen.de/entog/premature.htm>)
- Carson-Dewitt, Rosalyn S.1999 Premature rupture of membranes, Gale research, Inc, (<http://www.ahealthyme.com/article/gale/100083906>)
- Caulfield L.E, Zavaleta N, Shankar A.H, Merialdi M.,1998. Potensial contribution of maternal zinc supplementation during pregnancy to maternal and child survival. *Am J Clin Nutr*, 68(suppl) : 499S-508S
- Cohen A.W dan Neubert A.G.1996Premature rupture of membranes, *dalam* Spitzer AR eds *Intensive care of the fetus and neonate*, pp. 276-284, Mosby year book, St. Louis, Missouri
- Creasy R.K. 1994. Preterm Labor and delivery. *dalam* Creasy RK & Resnik R eds. *Maternal-fetal medicine: Principles and Practice*, 3th ed pp. 494-513. WB.Saunders Company, Philadelphia,
- Cunningham FG, Gant NF, Leveno KJ, eds.2001.Common complication of pregnancy, *dalam: Williams Obstetrics*, 21st ed. McGraw-Hill Company, New York
- Cunningham FG, Gant NF, Leveno KJ, eds 1993. Common complication of pregnancy., *dalam Williams Obstetric*, 19th Appleton & Lange, Connecticut
- Davidson K.M and Repke J.T.1998. Mineral metabolism in pregnancy *dalam* Cowett. RM eds *Principles of Perinatal-Neonatal Metabolism*, 2nd ed, pp. 281-289. Springer, New York
- Draper D, McGregor J, Hall J., 1995. Elevated protease activities in human amnion and chorion correlate with preterm premature rupture of membranes. *Am J Obstet Gynecol* , 173 : 1506-12
- Fauzi M, Abdullah M. N, 2002. Perbandingan kadar zinc ibu hamil cukup bulan yang dengan ketuban dini dan kehamilan normal. Karya tulis disampaikan pada Pekan Ilmiah Tahunan XIII Malang.
- Fontenot M.T, 1997. Preterm Premature Rupture of the Membrane. (<http://www.mc.uky.edu/obg/Newsletters/PPROM.htm>)
- Fortunato SJ, Menon R, Bryant C , Kombardi SJ .2000 Programmed cell death (apoptosis) as a possible pathway to metalloproteinase activation and fetal membrane degradation in premature rupture of membranes. *Am J obstet Gynaecol*; 182:1468-76



- Garite T.J. 1994. Premature rupture of the membrane *dalam* Creasy RK & Resnik R eds. *Maternal-fetal medicine: Principles and Practice*, 3th ed pp. 625-636. WB.Saunders Company, Philadelphia,
- Groff J.L, Gropper S.S, Hunt S.M .1995 *Zinc.dalam Advanced nutrition and human metabolism*, West Publishing company , Minneapolis.
- Kappy K.A, McTigue M, Guzman E.R.1993. Premature rupture of the membranes Knuppel RA & Drukker JE, eds. *High-risk prenataly, A Team Approach*Saunders, 2nd ed, pp. 378-392 . WB.Saunders Company, Philadelphia,
- Keen L and Hurley L.S.T.1989. Zinc and reproduction : effect of deficiency in foetal and postnatal development, *dalam* Zinc in human biology. *ILSI Human Nutrition Reviews* London,
- King J.C and Keen C.L. 1994 Zinc, *dalam* *Modern Nutrition in health and disease*, 10: 214-30 , Lea & Febiger, Philadelphia.
- Lazebnik N, Kuhnert B.R, Kuhnert P.M dan Thompson K.L, 1998. Zinc status, pregnancy complications and labor abnormalities. *Am J Obstet Gynecol*, 158 : 158-166.
- Lehti K. 1993. Stillbirth Rates and Folic acid and Zinc Status in Low-Socioeconomic Pregnant Women of Brazilian Amazon. *Nutrition* ;9 : 156-159
- Menon R, Lombardi SJ, Fortunato SJ, 2000, Activation of Apoptosis in PROM : Caspase Independent? *Perinatal research center*. (<http://www.perinatalresearch.com/pnr/apoptosis.html>)
- Maymon E, Romero R, Pacora P.2000. Matrilysin (matrix metalloproteinase 7) in parturition, premature rupture of membrane, and intrauterine infection. *Am J Obstet Gynecol* ;182: 1545-50
- Neggers Y.H, Cutter G.R, Acton R.T.1990. A positive association between maternal serum zinc concentration and birth weigh. *Am J Clin Nutr*, 51 : 678-84
- Odunsi K, Rinaudo P.1999. Premature rupture of the fetal membranes. A Program of the hygeia foundation for perinatal loss and bereavement, Inc (<http://hygeia.org/poems16.htm>)
- Parry S, Strauss III J.F.1998 Premature rupture of membranes. Mechanisms of disease, Review article. *The New England Journal of Medicine* 338 : 664-670
- Svigos J.M , Robinson J.S, Vigneswaran R., 1994 Premature rupture of the membranes, *dalam* James D.K, Steer P.J, Weiner CP, Gonik B , eds *High risk pregnancy management option* , pp. 163-170, Saunders, England.
- Tamura T and Goldenberg R.L1995. Zinc nutriture and pregnancy outcome. *Nutrition research* , 16 : 139-181.
- Schanler R.J.1998. Neonatal vitamin metabolism : water soluble, *dalam* Cowett. RM eds *Principles of Perinatal-Neonatal Metabolism*, 2nd ed, pp. 977-987. Springer, New York



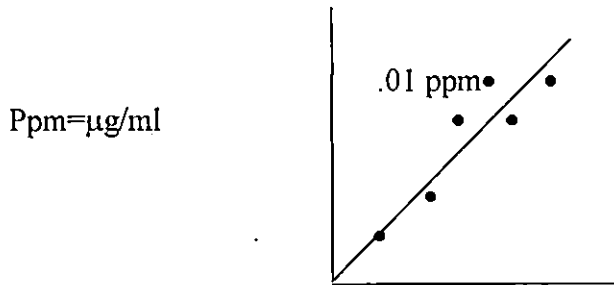
- Tamura T, Goldenberg R L, Freeberg E F, Cliveer SP, 1992. Maternal serum folat and zinc concentration and their relationships to pregnancy outcome. *Am J Clin Nutr*, 56 : 365-370
- Wada and King.1994 Zinc. Trace element nutrition. *Clinical obstetrics and gynecology*, 37 : 579-581
- Wingo PA, Hinggins JE, Rubin GL, Zahnizer SC, 1991. *An Epidemiologic Approach to Reproductive Health*. CDC, FHI,WHO, 151-178



Lampiran 1

Pemeriksaan Laboratorium

Preparasi Zinc dengan AAS (Atomic Absorpsi Spektometri)



2. Buat 1 N HNO₃ (62,5 HNO₃ pelat/L bidest untuk 30 sp = 3,13 ml HNO₃ pekat/50 ml bidest dalam tabung bebas mineral)
3. Pipet $\geq 300 \mu\text{l}$ serum/plasma masukkan dalam tabung.
4. Buat pengenceran sampel menjadi 1,5 ml

300 μl serum = 0,3 ml	1 : 5
1 N HNO ₃ = 1,2 ml	
Total = 1,5 ml	

5. Buat blanko (2 Buah) masing-masing berisi 1,5 ml 1 N HNO₃
 6. Diamkan semalam dalam suhu 4 °C (kulkas)
 7. Centifuge 18750 G selama 12 menit atau dengan tabung tertutup 16000 G selama 20 menit
 8. Tuang supernatant pada tabung lain dan baca hasil
- Perhitungan : { Absorbansi (AAS) x 5/ml }

$$= \text{Absorban} \times \text{pengenceran/jumlah sp/ml}$$



FORMULIR PENELITIAN

Hubungan kadar seng dengan ketuban pecah dini

Tanggal :

Form 1

IDENTITAS & PROFIL IBU

1. Nama Ibu :

2. Nama Suami :

3. Umur Ibu : tahun

		1-2
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4. Alamat :

5. Status obsteteri : Gravida :

Para :

Abortus :

	3
	4
	5

6. Hari pertama menstruasi terakhir (HPM) ____ / ____ / ____

7. Umur kehamilan : minggu

		6-7
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8. Riwayat hipertensi pada kehamilan ini : tidak (0) / ya (1) / tidak tahu (2)

	8
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9. Riwayat hipertensi pada kehamilan yang lalu : tidak (0) / ya (1) / tidak tahu (2)

	9
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10. Tinggi badan : cm

				10-12
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11. Berat badan : kg

								13-15
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12. Lingkar lengan atas : cm

								16-18
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13. Tekanan darah : / mmHg

Diisi oleh petugas : Hipertensi ? : tidak (0) / ya (1)

	19
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FORMULIR PENELITIAN

Hubungan kadar seng dengan ketuban pecah dini

Tanggal :

Form 2

PERSALINAN

14. Jenis persalinan 1) tunggal 2) kembar (untuk kembar, setiap bayi 1 formulir) 20
15. Komplikasi persalinan : 21
- 1) tidak ada 2)partus lama/macet 3) Plasenta previa
4) Inersia uteri 5) perdarahan 6) Retensio plasenta
7) Ketuban pecah dini 8) Infeksi 9)lain-lain
16. Lama ketuban pecah sampai bayi lahir (jam) 22
17. Persalinan terjadi di : 23
- 1) Rumah sendiri 2) rumah dukun 3) rumah bidan 4) Polindes
5) Puskesmas 6) Klinik bersalin 7) Rumah sakit 8) lain-lain

BAYI

19. Tanggal Persalinan :/...../ 2000
Umur kehamilan: (diisi oleh petugas) 24-25
20. Berat badan lahir : (gram) 26-29
21. Lingkar lengan atas : (cm) 30-32
22. Panjang badan : (cm) 33-35
23. Lingkar kepala (cm) : (cm) 36-38
24. Keadaan bayi setelah lahir : 39
- 1) normal 2) asfiksia 3) sindrom gawat nafas 4) kelainan bawaan
5) perdarahan 6) sepsis neonatorum 7) trauma 8) lahir mati
25. Kematian janin / bayi : 40
- 1) tidak ada 2) antepartum 3) intrapartum 4) post partum < 1mg
5) post partum >= 1minggu 6)lain-lain
26. Kelainan bawaan : 1)tidak 2) ya 41
- Sebutkan :



FORMULIR PENELITIAN

Hubungan kadar seng dengan ketuban pecah dini

Form 3

PEMERIKSAAN LABORATORIUM DARAH IBU

19. Kadar Seng plasma : $\mu\text{g} / \text{ml}$

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42 - 44

20. Hemoglobin : $\text{mg} \%$

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45 - 47

Nama Petugas :

Tanda tangan :