

**FACTORS ASSOCIATED WITH NOSOCOMIAL ROTAVIRUS OUTBREAK IN NEONATES THE PEDIATRICS WARD AT SIRIRAJ HOSPITAL, IN THAILAND 2008**

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**ABSTRACT**

The purpose of this case-control study was with analyzing the relationship of delivery history, treatment, and feeding factors in Rotavirus infected patients in Pediatric wards, Siriraj Hospital, Thailand. Gestational age at birth, birth weight, and delivery were categorized as delivery history factor, while the treatment with or without insertion of nasogastric tubes were classified as treatment factors. In addition, breastfeeding, formula feeding, and the combination between these two feedings were grouped as feeding factors, during the July 24<sup>th</sup> to November 10<sup>th</sup>, 2008 A.D., a total of 117 Rotavirus infected patients are neonates aged 3 days to 131 days. The data were analyzed with logistic regression to identify the strength of association among these factors.

The results indicated that the factors associated with Rotavirus infection were delivery history and feeding factors. Insertion of nasogastric tube had no significant relationship with the infection. Compared to normal delivery, instrumented delivery (F/E, V/E) increased the chance of Rotavirus infection (OR = 6.22, 95% CI = 1.70 -22.80). The neonates receiving formula and combined feeding had more chance to be infected with Rotavirus, compared to breast feeding (OR = 5.67 and 3.56, 95% CI = 2.66 - 12.07 and 1.67 - 7.60 respectively). Therefore, breastfeeding neonates from birth to increase immunity to Rotavirus infection should be supported.

**KEY WORDS: NEONATES / ROTAVIRUS/ NOSOCOMIAL INFACTION/ RISK FACTROS**