

ABSTRACT**COMPARISON OF NORMAL BACTERIAL FLORA PATTERN IN NEONATAL CONJUNCTIVA BETWEEN VAGINAL DELIVERY AND CAESARIAN SECTION (Cross Sectional Observational Analytic Study in Dr. Soetomo Hospital Surabaya)
Yasin Fadillah, Luki Indriaswati, Risa Etika, Budi Wicaksono, Eko Budi Koendhori**

Objective: To analyze the differences of normal bacterial flora pattern in the conjunctiva between vaginally born and caesarian section neonates at Dr. Soetomo Hospital, Surabaya

Methods: This study was a cross sectional observational analytic study, 84 subjects were enrolled consisted of 35 men (41.7%) and 49 women (58.3%) which were obtained by 29 (34.5%) preterm and 55 (65.5%) aterm neonates. The study was conducted in neonatal and postpartum room at Dr. Soetomo Hospital Surabaya during January-March 2017. Samples were taken from lower fornix conjunctiva of the right eyelid using a sterile cotton swab an hour after delivery then cultured in the clinical microbiology laboratory in order to identify bacterial species.

Results: Analysis using the Fisher Exact test with p value = 0.001 ($p < 0.05$) showed a differences between two types of bacterial culture of vaginal delivery and caesarian section. Positive culture was higher in vaginal delivery with $p=0.037$ ($p < 0.05$). Among the vaginally delivered newborns, the most common bacteria isolated was *S. epidermidis* (47.6%). In the caesarian section, the most common isolated was *S. aureus* (26.2%). The results of the demographic data on gender ($p=1.000$), gestational age ($p=0.066$), birth weight ($p=0.090$), maternal age ($p=1.000$), PROM ($p=0.070$) and amniotic fluid color ($p=0.809$) showed no significant difference between two types of labor.

Conclusion: Pattern of normal bacterial flora of the conjunctiva in vaginally born is differ from caesarian section neonates. Positive culture was higher in vaginal delivery.

Keywords: bacteria, culture, conjunctiva, neonates, vaginal delivery, caesarian section