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ESCHERICHIA COLI
MICROBIOTA OF HEALTHY
INDONESIAN INFANTS VILLAGE
ANDALAS: INFANT DIET
PROFILE OF EXCLUSIVE
BREASTFED AND FORMULA-FED

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Submission date: 06-Aug-2023 09:30PM (UTC+0700)

Submission ID: 2142028228

File name: abstract_book_ICNHS_April_2021.pdf (1.07M)

Word count: 484

Character count: 2809

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INDONESIAN INFANTS VILLAGE ANDALAS: INFANT DIET PROFILE OF
EXCLUSIVE BREASTFED AND FORMULA-FED**

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ABSTRACT

Inbalance of microbiota in gastrointestinal tract has the risk of getting gastrointestinal infections, one of them is diarrhea. The aim of this study was to determine bifidobacterium and eschericia coli microbiota and compare the microbiota obtained between exclusive breast fed and formula fed of Indonesian infants in Andalas Village. This study was an observational study with cross-sectional comparative design. Samples of feces of infant was taken by Multistage Simple Random Sampling with total sample of 28 infants at the range of 0-6 months. This study was conducted in Pauh Public Health Center working areas, Andalas Village. The infant's feces were taken and sent to Microbiology Laboratory of Dr. M. Djamil Hospital Padang city, Indonesia. The instruments used were a questionnaire and a colony counter. Data were processed and analyzed by using independent t test and Mann Whitney test. Results found that the fecal microbiota of the 0-6 months Indonesian infants of Andalas Village contained two species including bifidobacterium and eschericia coli which were a common commensal intestinal microbiota in all infants. The predominant intestinal microbiota in the breast fed infants bifidobacterium was at the average of 3.59×10^9 CFU/g ($p < 0.05$). Meanwhile, the eschericia coli microbiota from the formula fed infants was at the average of 66.8×10^9 CFU/g ($p < 0.05$). Exclusive breastfeeding infant's feces contains more bifidobacteria, while formula breastfed infant's feces contains more Escherichia coli bacteria. These findings advance our understanding of the gut microbiota in healthy infants. They also provide new evidence that infant diet as determinants of this essential microbial community in early life

Keywords: bifidobacterium, escherichia coli, exclusive breast fed, formula fed

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