PERBEDAAN KADAR *ALPHA 1 ANTITRYPSIN FESES* BERDASARKAN TINGKAT KEPARAHAN DIARE AKUT PADA ANAK

TESIS

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ABSTRAK

Diare dapat menyebabkan kekurangan gizi, gangguan pertumbuhan dan gangguan kognitif. Gangguan gizi pada penderita diare dapat terjadi karena asupan makanan yang kurang, atau kehilangan langsung karena kerusakan mukosa usus. Kehilangan protein melalui saluran cerna dapat dinilai dengan pemeriksaan kadar *alpha 1 antitrypsin* feses.

Tujuan penelitian ini adalah untuk menilai perbedaan kadar *alpha 1 antitrypsin* feses berdasarkan tingkat keparahan diare akut pada anak. Penelitian *cross sectional* dari Januari-Juli 2017. Penelitian dilakukan di RSUP Dr M Djamil dan RS Yos Sudarso Padang. Tingkat keparahan diare dinilai menggunakan *Vesikari clinical severity scoring system*. Kadar *alpha 1 antitrypsin* feses diperiksa dengan cara ELISA. Analisis statistik menggunakan uji *Kruskal-Wallis*.

Dari 60 subjek penelitian, didapatkan rerata kadar *alpha 1 antitrypsin* adalah 202,32 mg/dL ± 131,96. Kadar *alpha 1 antirypsin* feses pada kelompok tingkat keparahan diare ringan didapatkan 123,6 (87-295,1)mg/dL, pada kelompok tingkat keparahan diare sedang 166,4 (23,8-332,9)mg/dL dan kelompok tingkat keparahan diare berat 268,6 (25,5-511,9)mg/dL. Uji analisis statistik menunjukkan terdapat perbedaan kadar *alpha 1 antitrypsin* feses yang signifikan pada setiap tingkat keparahan diare dengan nilai p =0,003.

Kesimpulan penelitian ini terdapat peningkatan kadar *alpha 1 anitripsin* feses yang bermakna sesuai dengan tingkat keparahan diare.

Kata kunci: tingkat keparahan diare akut, kadar *alpha 1 anttitrypsin* feses, anak

ABSTRACT

Background. Diarrhea may lead to malnourished, growth disorder, and cognitive impairment. Nutritional disorders in diarrhea sufferers may occur of poor food intake, malabsorption due to intestinal mucosal damage, catabolism caused by the infection process and direct loss due to intestinal mucosal damage. Loss of protein through the gastrointestinal tract can be assessed by examination of alpha 1 antitrypsin of stool.

Objetive. To determine the association of alpha 1 antitrypsin of stool with the severity level of diarrhea in children

Methods. This study was cross sectional study with consecutive sampling and obtained 60 samples of M. Djamil and Yos Sudarso Hospital in Padang. The severity level of diarrhea was obtained by Vesikari clinical severity scoring system and investigated alpha 1 antitrrypsin of all samples

Result. Mean ages of subject study was 25 month. The study participant was 38 boys (63,3%) and 22 girls (36,7%). In accordance the characeteristic of nutritional status, undernourished was 31 subjects (51,7%) more than wellnourished with 29 subjects (48,3%). The severity level of diarrhea was obtained severe diarrhea 26 (43.3%), moderate diarrhea 21 (35%), and mild diarrhea 13 (21.7%). Statictical analytic, There was no significant correlation in between nutritional status with severity level of diarrhea (p=0.201). There was significant correlation of alpha 1 antitrypsin level of stool with severity level of diarrhea (p=0.003). different level of alpha 1 antitrypsin was statistic significantly (p< 0.05) in between 2 groups, there were moderate with severe diarrhea and mild diarrhead with severe diarrhea.

Conclusion. There is association in between alpha 1 antitrypsin level of stool with severity level of diarrhea

Keyword: severity level of diarrhea, alpha 1 antitrypsin, stool