Gambaran klinis diare akut pada anak dan real-time polymerase chain reaction bakteri enteropatogen di Rumah Sakit Cipto Mangunkusumo = Clinical manifestations of pediatric acute diarrhea and real time polymerase chain reaction of bacterial enteropathogen in Cipto Mangunkusumo Hospital

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Abstrak

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 Latar belakang: Diare masih merupakan masalah kesehatan masyarakat di negara berkembang karena morbiditas dan mortalitasnya yang masih tinggi. Diare dapat disebabkan oleh virus, bakteri dan parasit yang penting diketahui untuk memberikan tatalaksana yang tepat, namun saat ini belum ada data mengenai bakteri penyebab diare di Indonesia.

Tujuan: Mengetahui gambaran klinis anak dengan diare akut dan mengetahui jenis bakteri enteropatogen penyebab diare akut dengan menggunakan real-time PCR di Rumah Sakit Cipto Mangunkusumo.

Metode: Penelitian potong lintang pada anak dengan diare akut berusia 1-15 tahun di Rumah Sakit Cipto Mangunkusumo.

Hasil: Subyek penelitian ini terdiri dari 60 subyek dengan diare akut. Sebagian besar berusia 1-3 tahun, status gizi baik, berasal dari ibu dengan pendidikan sedang dengan status ekonomi keluarga menengah rendah, sebagian besar belum mendapat antibiotik sebelum ke rumah sakit tetapi sudah mendapat cairan rehidrasi oral. Gambaran klinis diare akut akibat infeksi bakteri yaitu frekuensi diare ≤5X/hari (p=0,018), tanpa leukositosis feses (p=0,015) dan malabsorpsi lemak (p=0,031). Sebaran infeksi bakteri patogen penyebab diare akut berdasarkan real-time PCR sebagai berikut: Campylobacter jejuni 7 subyek, Escherichia coli patogen 17 subyek yang terdiri dari EPEC 9 subyek, EIEC 5 subyek dan ETEC 3 subyek. Infeksi bakteri campuran pada subyek sebagai berikut: EPEC+EIEC 2 subyek , C.jejuni+EPEC 1 subyek, C.jejuni+EPEC+EIEC 1 subyek dan C.jejuni+EPEC+ETEC 1 subyek.

Simpulan: Sebagian besar diare terjadi pada usia 1-3 tahun dengan status pasien gizi baik dengan status keluarga menengah rendah. Sekitar 48% anak dengan diare akut didapatkan bakteri dari hasil real-time PCR feses dengan proporsi terbanyak yaitu EPEC, diikuti Campylobacter jejuni, EIEC dan ETEC.
ABSTRACT
 Background: Diarrhea is still a public health problem in developing countries due to it?s morbidity and mortality. Diarrhea can be caused by viruses, bacteria

and parasites. It is important to know the etiology to provide proper management, but there is currently no data on the bacteria that causes diarrhea in Indonesia.

Objective: To characterize the clinical manifestations of children with acute diarrhea and determine the type of enteropathogens bacteria causing acute diarrhea using real-time PCR in Cipto Mangunkusumo Hospital.

Methods: This was a cross-sectional study, done in June-November 2015. Stool specimens were collected from patients aged 1-15 years with acute diarrhea and tested for bacterial enteropathogens using real-time PCR.

Results: Of the 60 children enrolled, mostly aged 1-3 years, good nutritional status, from low income families and secondary education mothers, most have not received antibiotics prior to hospital admission but had received oral rehydration fluids. The clinical features of acute diarrhea caused by bacterial infection is diarrhea frequency ≤5X / day without fecal leukocytosis and fat malabsorption. From 60 subjects, 29 (48,3%) children excreted bacteria in their feces prooved by real-time PCR. Distribution of pathogenic bacterial infection causes acute diarrhea by real-time PCR as follows: Campylobacter jejuni 7 subjects, pathogenic Escherichia coli 17 subjects which consists of EPEC 9 subjects, EIEC 5 subjects and ETEC 3 subjects. Multiple infections in subjects as follows: EPEC+EIEC 2 subjects, EPEC+C.jejuni 1 subject, C.jejuni+EPEC+EIEC 1 subject and C.jejuni+EPEC+ETEC 1 subject.

Conclusions: Most diarrhea occurs at the age of 1-3 years with good nutritional status of patients with low-medium family status. Approximately 48% of children with acute diarrhea excreted bacteria in their feces prooved by real-time PCR stool with the highest proportion is EPEC, followed by Campylobacter jejuni, EIEC and ETEC.
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