from two different pediatric emergency services, and randomly chosen 219 school children of 6 and 13 years of age from different socioeconomic environments and who did not have diarrhea. Stool samples were prepared with native-lugol and examined and then stained with trichrome and further examined under a light microscope.

Genomic DNA was extracted from the stool samples using QIAamp® DNA Stool Mini Kit The extracted DNA samples were examined in terms of the presence of Blastocystis sp. using the real-time PCR method with the genesig® Standard Kit (Primer Design., UK) designed for the quantification of the *Blastocystis* G elongation factor-1 alpha gene. The PCR was performed using seven subtype-specific sequenced tagged site (STS) primers (SB83, SB155, SB227, SB332, SB340, SB336 and SB337) for the genotyping of Blastocystis sp. The collected data was analyzed using the SPSS (Version 17, Chicago IL, USA).

Results: 115 samples were found positive for *Blastocystis* sp.. Subtyping was successfully performed on 46 samples using sequenced-tagged site (STS) primers and the PCR method. The most frequently detected subtype was ST3 (43.4%) followed by ST1 (26.1%), ST4 (10.9%) and ST2 (8.7%). The mixed subtypes were identified in five samples (10.9%) as; ST1+ST3 (n = 3), ST1+ST2 (n = 1) and ST2+ST3 (n = 1). None of the samples had ST5, ST6 or ST7. No statistically significant difference was found between the symptomatic and asymptomatic groups in terms of the *Blastocystis* sp. positivity and the distribution of subtypes ($p > 0.05$).

Conclusion: This is the first study conducted to investigate the subtype distribution of *Blastocystis* sp. in children in Turkey and the findings obtained from this study are in agreement with the related data available in Turkey.

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Detection of Blastocystis sp. Infection using different investigation techniques in children with or without acute diarrhea

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Background: *Blastocystis* is a common human intestinal parasite with high prevalence in developing countries and one of the causative agent for acute infectious diarrhea. Microscopic methods such as native-lugol and trichrome staining are most frequently used in routine diagnosis. Our study to evaluate the prevalence of *Blastocystis* in children in Eskisehir, Turkey with or without acute diarrhea, using direct microscopy, trichrome stain and real-time polymerase chain reaction (PCR) technique.

Methods & Materials: Study was carried out between January 2011 and March 2013 in Eskisehir city center in children. They were admitted to the emergency unit with acute diarrhea and school children without diarrhea from seven different socioeconomic backgrounds have been enrolled. Stool specimens were investigated by routine fecal examinations in the Parasitology laboratory of Eskisehir Osmangazi University Education and Research Hospital. We investigated 961 stool samples taken from children. We have a limited number of molecular tests therefore 303 samples have been evaluated with these three methods. All of the symptomatic childrens stool samples (n = 84) were chosen for moleculer test and in asymptomatic children's stool samples (n = 219) we were chosen by randomly selection.

Results: *Blastocystis* were seen in 38.6% of samples with direct microscopic examination, 35.6% of samples by the trichrome stain, 38.2% by PCR method. In symptomatic group respectively; 14.2%, 19.0% and 19.0% also asymptomatic group ratio respectively; 47.9%, 42.0% and 45.6%. In the symptomatic group, compared to PCR-based evaluation of *Blastocystis* infection, for direct microscopic evaluation the sensitivity was 12.5% and the specificity was 85.2%, while for trichrome staining 31.2% and 83.8% respectively while the negative predictive value was 80.5% and 83.8%, respectively. In the asymptomatic group, compared to PCR-based evaluation of *Blastocystis* infection, for direct microscopic evaluation the sensitivity was 74.0% and the specificity was 73.9%, while for trichrome staining 59.0% and 72.2%.

Conclusion: PCR is a useful technique for the evaluation of fecal samples in acute diarrhea for *Blastocystis sp.* Direct microscopic evaluation can be used to rule out Blastocytis infection in children with acute infectious diarrhea but there are needed multicenter and large-scaled molecular and clinical studies.

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In vitro activity of different 5-nitroimidazole derivatives and essential oils against Trichomonas vaginalis

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Background: Trichomoniasis is a common sexually transmitted disease (STD) caused by *Trichomonas vaginalis*. Treatment of trichomoniais is usually achieved by 5-nitroimidazole derivatives. But some resistant strains to treatment failures of metronidazole have been reported and also numerous side effects, so it is continuing the search for alternative treatments. We evaluated in vitro effective concentrations of different 5-nitroimidazole derivatives and essential oils against *T. vaginalis*

Methods & Materials: *T. vaginalis* was grown in TYM medium which was supplemented bovine serum and Vitamin B12. The in vitro minimum lethal concentrations (MLC) and the time for drug efficacy were determined 48 hour cultured. The number of trophozoites were adjusted to 10^5 parasite/ml using hematocytometer. Metronidazoleand and two different ornidazole were prepared at concentrations 450 mg/ml. also standart corvacrol, *Origanum vulgare subsp.hirtum* oil and tea tree oil concentrations were prepared at concentrations 0.1ml/10 ml in steril saline solution. The activity of trophozoites was evaluated at 0-2-24-48 hours using trypan blue and compared to growth and effective concentrations((EC_{50}s, EC_{90}s and EC_{100}) were calculated