THE MIX ORALIT-HONEY AND ACUTE GASTROENTERITIS IN JEMBER
Preparation of Camera-Ready Contributions to SCITEPRESS Proceedings

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Keywords: gastroenteritis, oralite, honey.

Abstract: Introduction: Acute gastroenteritis is the most common disease occurring in children under the age of five, which is defined as a sudden increase in frequency and changes in the consistency of the feces. Gastroenteritis is the leading cause of infant and under-five mortality in Indonesia. Methods: This study using pre experiment with randomized control group pretest-post-test. The sample used 16 respondents according to the inclusion criteria. The variables studied were giving mixing oralit and honey in children with acute gastroenteritis. Data were collected and analyzed by paired t-test and independent t-test. Result And Analysis: The results of this study proved that giving oralit mix therapy with honey gives a significant effect on the indicator of diarrhea frequency so condition from children is getting better. Discussion And Conclusion: The addition of honey in an oral re-hydration solution may reduce and improve the recovery of the defecate frequency of acute gastroenteritis. Provision of honey as an anti-bacterial and prebiotic to children with gastroenteritis.

1 BACKGROUND

Cases of acute gastroenteritis are still the leading cause of death in children, especially in developing countries such as Indonesia (Abdulrahman et al., 2010; Puspitayani & Fatimah, 2014). In Indonesia, gastroenteritis cases tend to increase in the year 2000-2010 even KLB (Kejadian Luar Biasa) still occur. By 2017 East Java Province becomes the third province in Indonesia identified by children with the most gastroenteritis (IDHS, 2018). Jember city is one of the districts in East Java which is located in eastern Java island. It was identified in the year 2013 under five years old with gastroenteritis number 59,462 (Dinkes Jember, 2014). According to WHO one form of treatment of cases of acute gastroenteritis is by giving fluids or rehydration, such as ORS (Oral Rehydration Solution). Oralit is often used as an oral rehydration therapy at home, health center or hospital to prevent dehydration.

Jember is famous for branding Pendalungan, the community has preventive habits in tackling the disease, one of them is by using honey. Several studies have shown that honey can be used as an oral rehydration therapy.

The purpose of this research is to utilize the local wisdom of Jember community in overcoming the problem of acute gastroenteritis that is by giving the mix of oralite and honey in children with acute gastroenteritis.

2 METHOD

This research design uses pre-post test quasi experiment with a cross-sectional method. This study began from January 30 to February 13 2018, in RSD Balung Jember regency with the number of samples is 16 respondents. 8 respondents were the intervention group with oralite and honey mixed therapy and the other 8 were control group with routine diarrhea management routine. The inclusion criteria in this study were respondents with a 1-5 year age range with a GEA diagnosis, while the exclusion criteria were those who were unable to tolerate oral fluid, had severe concomitant diseases such as colitis, immunodeficiency, metabolic abnormalities, diabetes, heart and kidney disease or other chronic diseases and malnutrition. Giving the mix of honey with oralite is honey in dose 5 ml dissolved in ORS 100 ml. Bivariate data analysis using paired test and independent T-test.
The number of respondents included in the study was 16 children. The number of the respondent of each group is 8 children. Sex and age in the intervention and control group can be seen in table 1.

In table 2 by using paired t-test showed that mixed oralit mixed and honey mixture group had significant difference $p = 0.03$ with a mean difference score $(0.50 \pm 0.535)$, while in control group there was no significant difference $p = 0.351$ with a mean difference score $(0.125 \pm 0.354)$.

As shown in table 3 by using an independent t-test, a significant difference between the control and the intervention group with $p = 0.024$.

### 3 RESULT

The content of fructose, dextroza, sucrose, and maltose in consecutive honey is 38.5%, 31%, 1.5% and 7.2%, where fructose has the highest content in honey (Komara, 2002). Fructose comes from the essence of fruits which is a source of energy and can increase the absorption of sodium and water. Honey can prevent children from diarrhea from hypernatremia because diffuse fructose absorption can also increase water absorption without increasing sodium absorption. Although, it has a high sugar content but honey does not cause osmotic diarrhea, because the fructose ratio with glucose is more than 1:1 (Vallinou, 2014). In this study, patients treated with oralit and mixed honey did not have allergies, but before giving this therapy if there are children who have allergies or hypersensitivity to honey then it will not be given. Honey is safe to use and easy to obtain.

### 5 CONCLUSION

The mix oralit and honey therapy can be used as oral rehydration therapy as a preventive effort for children who have acute gastroenteritis.

### REFERENCES