

THE EFFECT OF VIRGIN COCONUT OIL (VCO) IN REDUCING DIAPER RASH IN CHILDREN WITH ACUTE GASTROENTERITIS

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ABSTRACT

Acute gastroenteritis (GEA) is one of the diseases in developing countries that is the main cause of morbidity and mortality in children. Gastroenteritis resulting in Diaper rash causes a bright red rash caused by red skin irritation exposed to urine or feces that occurs for a long time on the bottom of the child's diaper. Diapers experienced by children will be at risk of causing pain, itching, and affecting discomfort because they can also spread to the genital area. Therefore, a safe intervention is needed that can reduce Diaper rash. Objective: To determine the Effect of Virgin Coconut Oil (VCO) in reducing diaper rash in Children with Acute Gastroenteritis. Method: This study is a case study involving 2 child patient participants aged 2-36 months with a medical diagnosis of acute gastroenteritis who have nursing problems of skin integrity disorders with moderate redness. Results: on the first day of the client, the redness on the buttocks looked moderate with a score of 4, on the 2nd day the child's redness looked mild with a score of 2, and on the 3rd day the child was advised to go home by the doctor because the condition had improved and the redness on the buttocks had decreased. In client 2 on day 1 the client's redness looked moderate with a score of 4, and on day 2 the client's redness still looked moderate with a score of 3, and on day 3 the redness on the client's buttocks looked mild with a score of 2 there were changes in both clients improving from the first day to the second and third days. Conclusions: Virgin coconut oil therapy is effective in treating diaper rash in pediatric patients by increasing skin moisture and accelerating the growth of granulation tissue and reducing redness.

Keywords: acute gastroenteritis; children; diaper rash; virgin coconut oil

INTRODUCTION

Acute gastroenteritis (GAE) is one of the diseases in developing countries that is the main cause of morbidity and mortality in children. According to World Health Organization data in 2019, diarrhea is a disease that occurs in most geographic areas in the world. GEA is also listed as a factor that causes quite high morbidity and mortality rates in the world, reaching 1.5 billion and around 1,519,229 children died in all countries due to this disease (WHO, 2019). Data from Central Java Province shows that diarrhea can be experienced by anyone and regardless of age, diarrhea cases in Central Java are still quite high at 214 per 1,000 population and the incidence of diarrhea in toddlers is 900 per 1,000 population. Around 20% of diarrhea cases that occur in Central Java province are handled by several health facilities amounting to 83,665 (Profil Kesehatan Provinsi Jawa Tengah, 2021).

The problem that occurs when a child experiences GEA is skin irritation that occurs in the area around the perineum. This condition is caused by the skin coming into contact too often with feces and urine which have high levels of ammonia and pH, which can cause moisture in the skin in children who experience GEA. (Agustina, 2021). Damage to the perineal area in GEA disease is triggered by frequent discharge of feces in liquid form, which can cause redness of the skin, where there is often repeated contact between the diaper and the perianal skin (Hasyim, 2021). Diapers

experienced by children will risk causing pain, itching, and affecting comfort (Mahayati, 2020). Apart from these impacts, there are several impacts caused by this disease, such as fatal dehydration which can threaten the sufferer's life if not treated properly and quickly (Kurniasih et al., 2020). One of the non-pharmacological therapies provided is by applying coconut oil (VCO).(Ainun et al., 2021). The content of pure VCO (virgin coconut oil) in it contains the main content compounds, namely lauric acid and capric acid, the main compounds have benefits and functions, one of which is as an anti-bacterial, anti-virus, anti-biotic, and anti-fungal. The distillation process will produce VCO that is clear in color, has low water content and fatty acid content, and smells good and lasts a long time, if stored it can last up to 12 months (Susanti, 2020).

METHOD

This research is a qualitative descriptive type with a case study approach. This study involved 2 child patient participants aged 2-36 months with a medical diagnosis of acute gastroenteritis who had nursing problems of impaired skin integrity with a moderate degree of redness. This case study research was conducted at RST TK II dr. Soedjono Magelang for 3 weeks on December 18, 2023 to January 27, 2024. Data collection using observation, interview and documentation study techniques.

RESULTS AND DISCUSSION

Karakteristik Responden

Table 1.
Respondent characteristics (n= 2)

Respondent characteristics	f	%
4 month	1	50
15 month	1	50
Female	1	50
Male	1	50

The effect of Virgin Coconut Oil (VCO) in reducing diaper rash

Tabel 1.
The effect of Virgin Coconut Oil (VCO) in reducing diaper rash

Klien	Hari 1	Hari 2	Hari 3
An .A	Pre : redness Moderate Post : redness Moderate	Pre : redness Moderate Post : redness mild	Pre : - Post :-
An M	Pre : redness Moderate Post : redness Moderate	Pre : redness Moderate Post : redness Moderate	Pre : redness Moderate Post : redness mild

Based on the observation results, it was found that An. A with skin integrity disorder problems who experienced diaper rash, the first day before being given coconut oil therapy with a moderate scale (2.0), the second day with a mild scale (1.0) and the third day the skin integrity disorder problem was resolved. While in An. M, the results were obtained on the first day with a moderate scale (2.0), the second day with moderate (2.0) and the third day with a mild scale (1.0). After being given coconut oil therapy, An. A's skin integrity disorder was resolved because Mrs. An. A was diligent in changing diapers if the child was urinating and defecating so that the diaper rash

experienced by An. A healed faster. An. M was still on a moderate scale because Mrs. An. A seemed lazy to change diapers, Mrs. An. A said that she only changed diapers once a day. From the results of the research conducted on the case management conducted on An. A aged 4 months and An. M aged 1 year 3 months. An. A experienced a diaper rash for the 2nd day and was treated at the same hospital, while An. M had experienced a diaper rash for the 4th day and was also treated at the same hospital. Impaired skin integrity is one of the problems in the world of nursing that is often found in children. This occurs because of frequent defecation with an abnormal frequency which can cause the skin in the perineal area to be exposed to feces, which can cause irritation or redness (Mahayati, 2020). Based on research conducted on An. A on December 21 - December 23, 2023 and An. M on December 26 - December 28, 2023 in the Flamboyan room of the dr. Soedjono Magelang Army Hospital, clients An. A and An. M with the same problem, namely impaired skin integrity and diarrhea with coconut oil therapy. On the first day of evaluation on client 1, subjective data obtained included the client's mother saying that her child was crying and fussy, when examined in a prone position and objective data obtained on client 1 on the first day the redness on the buttocks looked moderate with a score of 4, on the 2nd day the child's redness looked mild with a score of 2, and on the 3rd day the child was advised to go home by the doctor because the condition had improved and the redness on the buttocks had decreased.

Evaluation results for client 2 subjective data obtained that the client's mother said that the client's buttocks had been red for 3 days, restless, uncomfortable with the environment and crying when the diaper wanted to be changed because according to the client's mother the redness on the client felt itchy and sore, while the objective data obtained the child seemed to be crying in fear, restless, and sometimes wanted to go home, on the 1st day the client's redness looked moderate with a score of 4, and on the 2nd day the client's redness still looked moderate with a score of 3, and on the 3rd day the redness on the client's buttocks looked mild with a score of 2 there were changes in the two clients improving from the first day to the second and third days. The first step taken by researchers in VCO therapy is to wash hands, then clean the area covered by the diaper with water. If necessary, use baby soap to clean the baby's skin after defecating, if you want to use wet wipes, choose one that does not contain alcohol or fragrance. The second step is to dry the covered area using a soft cloth. Then apply coconut oil to the reddened perianal area or if there is a diaper rash for 1-3 minutes. After waiting for the coconut oil to dry completely before putting on a new diaper. The next step is to tidy up the client and then evaluate the action by measuring the skin integrity scale using the area grading scale, saying goodbye to the client, tidying up the equipment, recording the activities on the activity sheet in the nurse's record sheet.

How to deal with diaper rash in children during hospitalization VCO is given after bathing, after the toddler's body is dry, especially the buttocks, stomach, thighs and genitals, then apply VCO to the area that has diaper rash. After that, leave the VCO for 5-10 minutes, and continue to put on the diaper, a personal hygiene technique is needed in the perianal and buttocks areas. Personal hygiene services are actions carried out by someone by cleaning the moist area that can cause germs and bacteria to grow and providing coconut oil therapy. Through coconut oil therapy, the moist area in children can be reduced. Coconut oil therapy is effective because coconut oil contains linoleic acid which is useful for keeping water from evaporating, so this substance is good for use as a skin moisturizer. In addition, consuming fruit and coconut oil can make the skin healthy, as well as if applied, according to Leslie Baumann M, d, a writer of a book entitled the skin type (Apriza, 2020). The results of the study by Purwanti and Retnaningsih (2022) at the Watas Marga

Health Center, Rejang Lebong Regency, Bengkulu Province, showed that there was an acceleration in the change in diaper rash type due to the role of VCO which was given for 5 days as a natural antibacterial that was able to defeat deadly bacteria, a little water activity can absorb water from bacteria in diaper rash so that it can inhibit bacterial growth until bacteria have difficulty growing, virgin coconut oil is also an antiseptic because of its antibacterial properties. Astuti et al (2023) also stated that there was a difference in skin condition before and after coconut oil application therapy, so it can be concluded that coconut oil therapy is very effective to apply.

CONCLUSION

Case study of nursing care management of skin integrity disorders given Coconut Oil therapy for 1-3 minutes obtained results of a decrease in diaper rash in children from a mild scale (1.0) to a severe scale (3.0). Virgin coconut oil therapy is effective in treating diaper rash in pediatric patients by increasing skin moisture and accelerating the growth of granulation tissue and reducing redness

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