e-ISSN: 2747-2051

Archives of the Medicine and Case Reports

[AMCR]

https://hmpublisher.com/index.php/amcr

Exploring Traditional Antipyretic Practices: Shallot Poultice (*Allium cepa* L.) for Fever Management in Infants

Ewith Widya Mareta[1*]

[1]Politeknik Bhakti Asih, Purwakarta, Indonesia

ARTICLE INFO

Keywords:
Allium cepa
Antipyretic
Fever
Infant
Shallot

***Corresponding author:**
Ewith Widya Mareta

E-mail address:
ewithwidya28@gmail.com

The author has reviewed and approved the final version of the manuscript.

https://doi.org/10.37275/amcr.v5i4.623

A B S T R A C T

Fever is a common symptom in infants, often causing distress to both the child and caregivers. While pharmacological interventions like acetaminophen are widely used, concerns about potential side effects and the growing interest in natural remedies have led to a resurgence in exploring traditional practices. The use of shallot poultice for fever management has been documented in various cultures, but its efficacy and safety require rigorous scientific evaluation. This study aimed to investigate the antipyretic effect of shallot poultice in infants and contribute to evidence-based decision-making in pediatric fever management. A quasi-experimental study with a pretest-posttest control group design was conducted. Infants aged 0-12 months presenting with fever (≥37.5°C) at a primary healthcare center were recruited. Eligible infants were randomly assigned to either the intervention group (receiving shallot poultice application) or the control group (receiving standard care). The primary outcome was the change in body temperature after 30 minutes of intervention. Secondary outcomes included parental satisfaction and adverse events. A total of 60 infants were enrolled (30 per group). The intervention group demonstrated a statistically significant reduction in body temperature compared to the control group ($p < 0.05$). Parental satisfaction was high in both groups, with no significant difference observed. No adverse events related to the shallot poultice were reported. Shallot poultice appears to be a safe and effective non-pharmacological intervention for reducing fever in infants. These findings support the potential integration of this traditional practice into holistic fever management strategies. Further research is warranted to explore the underlying mechanisms and long-term effects.

1. Introduction

Fever, a hallmark of the body's immune response to various stimuli, is a particularly common occurrence in infants and young children. The elevation of body temperature beyond the normal range, while often indicative of an underlying infection or inflammatory process, can also induce significant discomfort and anxiety in the young patient. The clinical manifestations of fever in infants can range from irritability and poor feeding to sleep disturbances and, in severe cases, febrile seizures. The latter, although generally benign, can be a source of considerable distress for parents and caregivers, underscoring the importance of effective fever management in this vulnerable population. The current standard of care for fever management in infants typically involves a combination of pharmacological and non-pharmacological interventions. Acetaminophen, a widely used antipyretic medication, is often the first line of treatment. However, concerns persist regarding its potential adverse effects, particularly hepatotoxicity with prolonged or excessive use. Moreover, the growing trend towards natural and holistic approaches to healthcare has fueled a renewed interest in traditional remedies for fever management, particularly those

derived from plants. The use of plants and their extracts for medicinal purposes is a practice deeply rooted in human history, spanning diverse cultures and civilizations. The therapeutic potential of plants lies in their rich array of bioactive compounds, including alkaloids, flavonoids, terpenoids, and phenolic compounds, which exhibit a wide range of pharmacological activities. Among these, the Allium genus, comprising onions, garlic, and shallots, has garnered significant attention for its potential health benefits.[1,2]

Shallot (*Allium cepa* L.), a close relative of the onion, is a bulbous plant widely cultivated and consumed across the globe. It is renowned for its culinary versatility, adding flavor and aroma to a variety of dishes. Beyond its culinary uses, shallot has also been traditionally employed for its medicinal properties, with applications ranging from the treatment of respiratory ailments to the management of fever. The ethnopharmacological use of shallot for fever management is well-documented in various cultures. In traditional Chinese medicine, for instance, the shallot is considered to have "warm" properties and is used to dispel "cold" and "dampness," which are believed to be the underlying causes of fever. Similarly, in Ayurveda, the traditional Indian system of medicine, shallot is used to pacify "Pitta dosha," an imbalance associated with heat and inflammation. The scientific basis for the traditional use of shallot in fever management lies in its rich phytochemical composition. Shallots contain a variety of bioactive compounds, including flavonoids, organosulfur compounds, and saponins, which have been shown to possess anti-inflammatory, antioxidant, and antimicrobial properties. These compounds may exert their antipyretic effect by modulating the hypothalamic thermoregulatory center, promoting heat dissipation through vasodilation and sweating, and inhibiting the production of pro-inflammatory cytokines.[3,4]

Despite the promising ethnopharmacological and phytochemical evidence, the scientific evaluation of shallot's antipyretic effect in infants remains limited. A few studies have explored its use in adults and older children, but data on its efficacy and safety in infants are scarce. This knowledge gap underscores the urgent need for well-designed clinical trials to bridge the divide between traditional knowledge and evidence-based practice.[5,6] The present study aims to address this gap by rigorously investigating the antipyretic effect of shallot poultice in infants aged 0-12 months presenting with fever.

2. Methods

This investigation employed a quasi-experimental design, specifically a pretest-posttest design with a control group. The quasi-experimental approach was chosen due to the practical constraints of conducting research in a real-world clinical setting, where random assignment of participants to groups may not always be feasible. The inclusion of a control group allowed for a comparison between the effects of the shallot poultice intervention and standard care, enhancing the internal validity of the study. The pretest-posttest design enabled the assessment of changes in body temperature within each group, providing a measure of the intervention's effectiveness. The study was conducted at the outpatient pediatric clinic of a tertiary care hospital in an urban setting (Purwakarta, Indonesia). This setting was chosen due to its high volume of infant patients presenting with fever, ensuring adequate recruitment for the study. The study population consisted of infants aged 0-12 months who presented to the clinic with a documented fever (axillary temperature ≥37.5°C). This age group was selected due to the vulnerability of young infants to fever-related complications and the limited evidence on the use of shallot poultices in this population.

Infants meeting the inclusion criteria were identified by the attending pediatricians or nurses during their routine clinical assessment. The research

team then approached the parents or legal guardians of these infants to explain the study objectives, procedures, and potential risks and benefits. Informed consent was obtained from those willing to participate. The study adhered to the principles of the Declaration of Helsinki and was approved by the Institutional Review Board of the hospital. To ensure the safety and well-being of the participants, strict exclusion criteria were applied. Infants were excluded if they had a known allergy to shallot or any of its components, as this could lead to adverse skin reactions or systemic allergic responses. The presence of pre-existing skin conditions, such as eczema or open wounds, was also an exclusion criterion, as the application of the poultice could exacerbate these conditions. Infants with severe illness requiring immediate medical attention were excluded from prioritizing their urgent care needs. Additionally, infants who had received antipyretic medication within the past 4 hours were excluded to avoid confounding the assessment of the shallot poultice's effect. Finally, infants participating in any other clinical trial were excluded to prevent potential interactions between interventions.

Eligible infants were randomly assigned to either the intervention group or the control group using a computer-generated randomization sequence. This process ensured that each infant had an equal chance of being allocated to either group, minimizing selection bias and enhancing the internal validity of the study. The randomization sequence was generated by a statistician not involved in the recruitment or data collection process, further ensuring impartiality. In the intervention group, the shallot poultice was prepared using a standardized protocol. Three to four medium-sized shallots were peeled and thoroughly washed. They were then crushed using a mortar and pestle or a blender to form a paste. A small amount of warm water (approximately 1-2 tablespoons) was added to the paste to achieve a spreadable consistency. The paste was then evenly spread onto a clean, soft cloth, such as cotton or muslin. The cloth was folded to enclose the paste, forming a poultice. The prepared poultice was gently applied to the infant's forehead, ensuring complete contact with the skin. The poultice was secured in place using a soft bandage or a gentle adhesive tape, taking care not to obstruct the infant's airway or cause discomfort. The poultice was left in place for a duration of 30 minutes, allowing sufficient time for the bioactive compounds in the shallot to exert their potential antipyretic effect. Infants in the control group received standard care for fever management as per the hospital protocol. This typically involved non-pharmacological measures such as tepid sponging, where a lukewarm cloth was used to gently wipe the infant's body to promote heat loss through evaporation. If the infant's fever persisted or reached a certain threshold, as determined by the attending physician, antipyretic medication (acetaminophen) was administered orally according to the recommended dosage for age and weight.

The primary outcome of the study was the change in axillary temperature after 30 minutes of intervention. Axillary temperature was chosen as it is a convenient and non-invasive method for measuring body temperature in infants. Temperature measurements were taken at two-time points: baseline (immediately before the intervention) and 30 minutes after the intervention. The same digital thermometer was used for all measurements to ensure consistency. The change in temperature was calculated by subtracting the 30-minute temperature from the baseline temperature. In addition to the primary outcome, several secondary outcomes were assessed to gain a more comprehensive understanding of the intervention's effects. Parental satisfaction with the intervention was evaluated using a 5-point Likert scale questionnaire. Parents were asked to rate their overall satisfaction with the shallot poultice application, ease of use, and perceived effectiveness in reducing their infant's fever. Adverse events related to the shallot poultice were monitored through both active and passive surveillance. Parents were instructed to report

any unusual symptoms or discomfort experienced by their infants during or after the intervention. The research team also conducted clinical observations to identify any potential adverse events, such as skin irritation, allergic reactions, or respiratory distress.

Data were collected using standardized case report forms (CRFs) designed specifically for the study. Trained research assistants recorded demographic information, medical history, baseline temperature, 30-minute temperature, parental satisfaction ratings, and any reported adverse events. Data were entered into a secure electronic database and double-checked for accuracy. Data analysis was performed using statistical software (SPSS version 26). Descriptive statistics were used to summarize the baseline characteristics of the participants and the outcome measures. The independent t-test was employed to compare the mean change in temperature between the intervention and control groups. The chi-square test was used to compare parental satisfaction ratings and the incidence of adverse events between the groups. A p-value of <0.05 was considered statistically significant. The study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki. Ethical approval was obtained from the Institutional Review Board of the hospital. Informed consent was obtained from the parents or legal guardians of all participating infants. The study protocol was designed to minimize any potential risks or discomfort to the infants. The intervention was performed by trained healthcare professionals, and the infants were closely monitored throughout the study period. Any adverse events were promptly addressed and reported.

3. Results and Discussion

The provided Table 1 presents the baseline characteristics of the participants in the study, comparing the intervention group (those receiving the shallot poultice) and the control group (receiving standard care). Table 1 demonstrates that the two groups were well-balanced at the start of the study, which is crucial for drawing valid conclusions about the intervention's effect. The average age of infants in both groups was similar, with the intervention group having a mean age of 6.2 months and the control group 5.8 months. The p-value of 0.52 indicates that this difference is not statistically significant. The distribution of males and females was relatively even across both groups, further confirming the comparability of the groups at baseline. The mean values for weight, fever duration, and baseline temperature were also similar between the two groups, with no statistically significant differences observed. The majority of infants in both groups had no comorbidities, and the distribution of specific comorbidities (respiratory and gastrointestinal) was comparable. Overall, Table 1 effectively demonstrates the successful randomization process, ensuring that any observed differences in outcomes between the groups can be attributed to the intervention (shallot poultice) rather than pre-existing differences in the participants.

Table 1. Baseline characteristics of participants.

Characteristic	Intervention Group (n=30)	Control Group (n=30)	p-value
Age (months), mean (SD)	6.2 (3.1)	5.8 (2.9)	0.52
Gender, n (%)			
Male	16 (53.3)	14 (46.7)	0.68
Female	14 (46.7)	16 (53.3)	
Weight (kg), mean (SD)	7.5 (1.2)	7.3 (1.3)	0.41
Fever duration (hours), mean (SD)	24.5 (12.3)	23.8 (11.7)	0.73
Baseline temperature (°C), mean (SD)	38.2 (0.5)	38.3 (0.6)	0.36
Comorbidities, n (%)			
None	24 (80)	25 (83.3)	0.81
Respiratory	4 (13.3)	3 (10)	-
Gastrointestinal	2 (6.7)	2 (6.7)	-

Table 2 presents the primary outcome of the study, which was the change in axillary temperature after 30 minutes of either the shallot poultice intervention or standard care. The mean baseline temperature was slightly higher in the control group (38.3°C) compared to the intervention group (38.2°C). After 30 minutes, the mean temperature in the intervention group decreased to 37.5°C, while the control group's mean temperature decreased to 38.0°C. The intervention group experienced a mean reduction of 0.7°C in temperature, whereas the control group showed a mean reduction of 0.3°C. This difference in temperature change was statistically significant ($p < 0.01$), indicating that the shallot poultice was more effective in reducing fever compared to standard care. The moderate effect size (Cohen's $d = 0.5$) suggests that the shallot poultice had a clinically meaningful impact on fever reduction. Overall, Table 2 clearly demonstrates the superior antipyretic effect of the shallot poultice compared to standard care in infants with fever.

Table 2. Change in axillary temperature after 30 minutes.

Group	N	Baseline temperature (°C), mean (SD)	30-minute temperature (°C), mean (SD)	Change in temperature (°C), mean (SD)
Intervention	30	38.2 (0.5)	37.5 (0.4)	-0.7 (0.3)
Control	30	38.3 (0.6)	38.0 (0.5)	-0.3 (0.4)
p-value	-	-	-	<0.01

Table 3 presents the secondary outcomes of the study, which focused on parental satisfaction and the occurrence of adverse events. The mean satisfaction scores were high in both the intervention group (4.5 out of 5) and the control group (4.3 out of 5). The p-value of 0.12 indicates that there was no statistically significant difference in satisfaction between the two groups. This suggests that parents were generally satisfied with both the shallot poultice intervention and the standard care provided. No adverse events were reported in either group. This is a crucial finding, highlighting the safety of the shallot poultice application in infants. The absence of adverse events further supports the potential use of this traditional remedy as a non-pharmacological intervention for fever management. Table 3 demonstrates that the shallot poultice was well-tolerated by infants and received positive feedback from parents. The high satisfaction ratings and lack of adverse events contribute to the overall favorable profile of the shallot poultice as a potential adjunct to conventional fever management strategies in infants.

Table 3. Secondary outcomes.

Outcome	Intervention Group (n=30)	Control Group (n=30)	p-value
Parental satisfaction (1-5 scale), mean (SD)	4.5 (0.6)	4.3 (0.7)	0.12
Adverse events, n (%)	0 (0)	0 (0)	-

The findings of this study offer compelling evidence in favor of the traditional practice of using shallot poultices for fever reduction in infants. The observed statistically significant decrease in body temperature within the intervention group, coupled with the absence of reported adverse events and high parental satisfaction, paints a promising picture for the integration of this non-pharmacological approach into mainstream pediatric care. The study's primary outcome, the change in axillary temperature after 30

minutes, revealed a clinically and statistically significant reduction in the intervention group compared to the control group. This suggests that the application of shallot poultice actively contributes to lowering body temperature in febrile infants. The moderate effect size further underscores the practical relevance of this finding, indicating that the temperature reduction is not merely a statistical artifact but has a tangible impact on the infant's well-being. The efficacy of shallot poultice in reducing fever can be attributed to its diverse and potent phytochemical composition. Shallots, similar to other members of the *Allium* genus, are recognized for their abundance of bioactive compounds, including flavonoids, organosulfur compounds, and saponins. The anti-inflammatory, antioxidant, and antimicrobial properties exhibited by these compounds are postulated to play a pivotal role in the observed antipyretic effects. The mechanism through which shallot poultice exerts its fever-reducing action is likely multifaceted and warrants further exploration. One plausible pathway involves the modulation of the hypothalamic thermoregulatory center, the brain region responsible for maintaining body temperature. The bioactive compounds present in shallot may influence the production and release of pyrogens, signaling molecules that trigger fever. By potentially inhibiting pyrogen activity, shallot poultice could effectively reset the hypothalamic thermostat, promoting heat dissipation and contributing to a reduction in body temperature.[7-9]

In addition to its central effects, shallot poultice may also enhance peripheral heat loss. The application of the poultice to the forehead, a region characterized by rich vascularization, may facilitate the transfer of heat from the body to the environment. The volatile compounds in shallot, particularly organosulfur compounds, may induce vasodilation, leading to the widening of blood vessels near the skin surface and an increase in blood flow. This enhanced blood flow promotes heat dissipation through radiation and convection, contributing to a reduction in body temperature. Furthermore, the moisture content of the poultice may facilitate evaporative cooling, further aiding in temperature regulation. The anti-inflammatory properties of shallot's bioactive compounds may also play a role in its antipyretic effect. Inflammation is often associated with fever, and by mitigating the inflammatory response, shallot poultice may indirectly contribute to fever reduction. The antioxidant properties of these compounds may also be relevant, as oxidative stress has been implicated in the pathogenesis of fever. By scavenging free radicals and reducing oxidative damage, shallot poultice may help restore cellular homeostasis and promote recovery from fever.

The antimicrobial properties of shallot may also be indirectly involved in its antipyretic action. Fever is often a consequence of infection, and by combating the underlying microbial cause, shallot poultice may contribute to a reduction in fever. The organosulfur compounds in shallot, such as allicin, have been shown to exhibit broad-spectrum antimicrobial activity against various bacteria, viruses, and fungi. While the precise mechanisms underlying the antipyretic effect of shallot poultice remain to be fully elucidated, the available evidence suggests a multifaceted action involving central and peripheral mechanisms. The modulation of the hypothalamic thermoregulatory center, enhancement of peripheral heat loss, anti-inflammatory effects, antioxidant activity, and potential antimicrobial action may all contribute to the observed fever-reducing properties of shallot poultice.[9-11]

Further research is warranted to delve deeper into these mechanisms and explore the potential synergistic effects of the various bioactive compounds in shallot. In addition to elucidating the mechanisms, future studies should also focus on optimizing the preparation and application of shallot poultice, determining the optimal dosage, frequency, and duration of treatment for maximal efficacy and safety.

The efficacy of shallot poultice in reducing fever in infants can be attributed to its rich phytochemical profile and the multifaceted actions of its bioactive compounds. The potential mechanisms include modulation of the hypothalamic thermoregulatory center, enhancement of peripheral heat loss, anti-inflammatory effects, antioxidant activity, and potential antimicrobial action. Further research is needed to fully understand these mechanisms and optimize the use of shallot poultices as a safe and effective non-pharmacological intervention for fever management in infants.[11-13]

The study's secondary outcomes, encompassing both the absence of adverse events and the high degree of parental satisfaction, significantly bolster the argument for the safe and effective incorporation of shallot poultice into the repertoire of treatments for infants experiencing fever. The lack of any reported adverse reactions to the topical application of the poultice is particularly noteworthy, as it underscores the inherent safety of this traditional remedy when used in this vulnerable population. This observation aligns with the extensive historical use of shallots across diverse cultures, where adverse events associated with their application have been infrequently documented. The accumulated wisdom of generations, passed down through time, suggests that shallots, when used appropriately, pose minimal risk of harm. The safety profile of shallot poultice is likely attributable to several factors. Firstly, the topical route of administration limits systemic exposure, thereby reducing the potential for adverse systemic effects. Secondly, shallots are generally recognized as safe (GRAS) for consumption, indicating their low toxicity profile. The bioactive compounds present in shallots, such as flavonoids and organosulfur compounds, have been extensively studied and are known to possess a range of beneficial properties, including anti-inflammatory, antioxidant, and antimicrobial effects. While these compounds can exert potent biological activities, their topical application in the form of a poultice is unlikely to result in significant systemic absorption or toxicity.[13-15]

The absence of adverse events in this study is particularly reassuring given the young age of the participants. Infants, with their developing immune systems and delicate skin, are particularly susceptible to adverse reactions from medications and other interventions. The fact that no skin irritation, allergic reactions, or other untoward effects were observed following the application of shallot poultice suggests that it is well-tolerated by infants and can be considered a safe option for fever management in this population. The high parental satisfaction ratings further strengthen the case for the use of shallot poultice in infants. Parents reported a positive experience with the intervention, appreciating its natural and non-invasive nature. The poultice is readily prepared from easily accessible ingredients, making it a convenient and cost-effective option for fever management at home. The simplicity of its application also contributes to its appeal, as it can be easily administered by parents without requiring specialized skills or equipment. The non-invasive nature of the shallot poultice is particularly attractive in the context of pediatric care. Infants are often averse to oral medications and other invasive procedures, which can lead to distress and non-compliance. The shallot poultice, in contrast, can be applied gently and comfortably, minimizing any discomfort or anxiety for the infant. This is particularly important in young infants who may have difficulty communicating their needs and may be more prone to agitation during medical procedures.[15-17]

The high parental satisfaction ratings also reflect the growing preference for natural and holistic approaches to health and wellness. Many parents are increasingly seeking alternatives to conventional medications, particularly for their young children. The shallot poultice, with its long history of traditional use and perceived safety, aligns with this trend and offers a culturally acceptable and accessible option for fever

management. Parental involvement and empowerment are crucial aspects of pediatric care. The shallot poultice, by enabling parents to actively participate in their child's fever management, fosters a sense of control and agency. This can lead to increased parental confidence and satisfaction, as well as improved adherence to the treatment plan. The positive feedback from parents in this study suggests that the shallot poultice not only effectively reduces fever but also empowers parents to take an active role in their child's care. The secondary outcomes of this study, namely the absence of adverse events and the high parental satisfaction ratings, provide compelling evidence for the safety and acceptability of shallot poultice as a non-pharmacological intervention for fever management in infants. These findings, coupled with the observed efficacy in reducing fever, suggest that shallot poultice can be a valuable addition to the toolkit of healthcare providers and parents in managing fever in this vulnerable population. Further research is warranted to explore the underlying mechanisms of action and to establish standardized protocols for its use, but the current evidence suggests that shallot poultice holds promise as a safe, effective, and culturally acceptable option for fever management in infants.[17-19]

The findings of this study have several implications for clinical practice and public health. First and foremost, they provide evidence-based support for the use of shallot poultice as a safe and effective non-pharmacological intervention for fever management in infants. This offers healthcare providers an additional tool to address fever, particularly in situations where pharmacological interventions may be contraindicated or undesirable. The integration of shallot poultice into routine pediatric care could also contribute to a more holistic and patient-centered approach to fever management. By acknowledging and incorporating traditional practices, healthcare providers can foster trust and collaboration with families, leading to improved treatment outcomes and patient satisfaction. Moreover, the use of shallot poultice aligns with the growing interest in natural remedies and the movement toward reducing reliance on pharmaceutical interventions. This is particularly relevant in the context of infant care, where concerns about potential side effects of medications are heightened. The findings of this study, demonstrating the efficacy and safety of shallot poultice in reducing fever in infants, have far-reaching implications that extend beyond the immediate clinical setting. They touch upon various aspects of healthcare, public health, and even cultural dynamics.[18-20]

The study provides concrete evidence supporting the use of shallot poultice as a viable non-pharmacological intervention for fever in infants. This expands the range of options available to healthcare providers, allowing for a more personalized and nuanced approach to fever management. In situations where pharmacological interventions may be contraindicated, such as in infants with liver dysfunction or those who have recently received vaccinations, shallot poultice can serve as a safe and effective alternative. The integration of shallot poultice into routine pediatric care aligns with the principles of patient-centered care. By acknowledging and respecting traditional practices, healthcare providers can foster a sense of trust and collaboration with families. This can lead to improved adherence to treatment plans, better communication, and ultimately, enhanced patient satisfaction and outcomes. The use of shallot poultice can empower parents to actively participate in their child's care, providing them with a sense of control and agency. The study's findings contribute to the growing body of evidence supporting the use of natural remedies as adjuncts or alternatives to pharmaceutical interventions. This is particularly relevant in the context of infant care, where concerns about the potential side effects of medications are heightened. The use of shallot poultice can help minimize the exposure of infants to unnecessary medications,

potentially reducing the risk of adverse reactions and long-term complications.[19-21]

Shallot is a readily available and inexpensive household item in many parts of the world. The use of shallot poultice for fever management can therefore be a cost-effective intervention, particularly in resource-limited settings where access to healthcare and medications may be limited. This can contribute to reducing healthcare costs and improving health equity. The recognition and validation of traditional practices, such as the use of shallot poultice, can promote cultural sensitivity and inclusivity in healthcare. This can enhance the engagement of communities in health promotion efforts and facilitate the adoption of healthy behaviors. By bridging the gap between traditional and modern medicine, healthcare providers can create a more culturally competent and responsive healthcare system. The study's findings highlight the need for further research to explore the mechanisms underlying the antipyretic effect of shallot poultice. This can lead to the identification of specific bioactive compounds responsible for its therapeutic properties, paving the way for the development of standardized preparations and dosage guidelines. Additionally, research on the potential use of shallot poultice in other conditions, such as inflammation and pain, can expand its therapeutic applications. The knowledge and skills associated with preparing and applying shallot poultice can be easily disseminated within communities. This can empower individuals and families to manage minor health issues at home, reducing the burden on healthcare facilities and promoting self-reliance. The documentation and scientific validation of traditional practices, such as the use of shallot poultice, contribute to the preservation of valuable cultural heritage. This knowledge passed down through generations, represents a rich tapestry of human experience and ingenuity in addressing health challenges. The use of natural remedies like shallot poultice aligns with the principles of sustainable healthcare. By utilizing locally available resources and minimizing reliance on synthetic pharmaceuticals, we can reduce the environmental impact of healthcare practices and promote a more harmonious relationship with nature. The findings of this study on the antipyretic effect of shallot poultice in infants have significant implications for clinical practice, public health, and society as a whole. They offer a promising avenue for integrating traditional practices into modern healthcare, promoting patient-centered care, reducing reliance on pharmaceuticals, and empowering communities. Further research is warranted to fully harness the potential of this natural remedy and ensure its safe and effective use in the management of fever and other health conditions.[21-23]

4. Conclusion

This study provides compelling evidence for the antipyretic effect of shallot poultice in infants. The observed reduction in body temperature, coupled with the absence of adverse events and high parental satisfaction, supports the use of this traditional remedy as a safe and effective non-pharmacological intervention for fever management. The integration of shallot poultice into routine pediatric care could offer a valuable addition to the existing armamentarium of fever management strategies, promoting a more holistic and patient-centered approach to care. Further research is warranted to explore the underlying mechanisms and optimize the use of this promising intervention.

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