



Review Article

Child health advocacy in Saudi Arabia: Traditional medicine as a model

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المخلص

أهداف البحث: تهدف هذه الدراسة الى وصف بعض الفرص والتحديات التي يواجهها دعاة الصحة في المملكة العربية السعودية عند التعامل مع القضايا الصحية الشائعة التي تؤثر على الأطفال في مجتمعنا، بما يسمى الطب التقليدي

طرق البحث: تمت مراجعة الأدبيات في وعاء النشر للكلمات الدالة الطب البديل، الطب التقليدي، المملكة العربية السعودية والتأييد. تم تضمين جميع الأوراق العلمية التي وجدناها في وعاء النشر البوب ميد باستخدام البحث عن كلماتنا الدالة، ولم نستبعد الأوراق العلمية من الدول الأخرى ذات الخلفية الثقافية المماثلة، بالإضافة الى التوصيات من المؤلفين.

النتائج: احدي أكبر الفرص للتأييد في المملكة العربية السعودية هي الطب التقليدي، الأدوية العشبية التقليدية والعلاج الروحاني التي تعتبر ممارسات شائعة في مجتمعنا. تمارس مثل هذه الأفعال من غير مراقبة ملائمة، تسببت في مضاعفات سلبية أثرت على الأطفال والعائلات. تم سرد العديد من التحديات في هذا البحث مثل استخدام هذه الممارسات لعلاج الحالات الطبية الحادة، الثقافة والمعتقدات، ومعضلة حماية الطفل. بشكل قانوني، هناك قصور في السياسات والتشريعات الوطنية، نقص في الأبحاث، وقوائم الانتظار الطويلة للحصول على خدمات الرعاية الصحية بالمقارنة بالمناجرات التقليدية.

الاستنتاجات: تتضمن التوصيات تحسين المعرفة المجتمعية وتغيير السلوك، جمع البيانات وسن اللوائح، ووصول أفضل لخدمات الرعاية الصحية وكل ذلك بدعم من قبل رؤية السعودية ٢٠٣٠

الكلمات المفتاحية: التأييد؛ الوقاية؛ الطب التقليدي؛ المملكة العربية السعودية

Abstract

Objective: The purpose of this work is to describe the opportunities and challenges faced by health advocates in Kingdom of Saudi Arabia (KSA) regarding traditional medicine practices, which commonly result in health issues affecting children in the community.

Method: A literature review was conducted of all articles identified in PubMed with the following keywords: alternative medicine, traditional medicine, KSA, and advocacy. No articles from other countries with similar cultural backgrounds were excluded, and recommendation from authors were listed at the end of the article.

Results: Traditional medicine, traditional herbal medications, and spiritual treatments, which are common practices in the community, present major opportunities for advocacy in KSA. Because these practices are conducted without appropriate supervision, many adverse events result, thus affecting children and families. Many challenges are described herein, such as use of these practices in treating benign self-limited conditions; the surrounding culture and beliefs; and the dilemma of achieving child protection. At the system level, national policies and legislation, as well as research, are lacking. Moreover, health care facilities have longer waiting lists than traditional medicine facilities.

Conclusion: Recommendations include improving knowledge, facilitating behavioral changes, data collection, bylaw enactment, and providing better access to health care facilities, all of which are supported by Saudi Vision 2030.

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Keywords: Advocacy; KSA; Prevention; Traditional medicine

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Introduction

Everyone has constructive ideas, but without a process to advocate for those ideas, they cannot become a reality. Opportunities will always exist for those ideas to be developed, as will challenges that may prevent this development, or necessitate greater effort or power to achieve success. Advocates may lack the power or time to influence others; however, such power may be unnecessary, provided that skills to be effective and perseverance are present. Furthermore, success in advocacy is maintained through sustainability and accountability. In Kingdom of Saudi Arabia (KSA), as in many other developing countries, the roles of health practitioners as health advocates have received insufficient attention. Health advocates must identify and understand the most intimate health needs of not only individual patients but also the population at large. Such understanding enables them to respond appropriately to opportunities for advocacy at the individual, family, and societal levels. The roles of health advocates may transcend health issues and are not limited to efforts in fighting against poverty, environmental degradation, violence, health inequities, and social disparities.¹ Advocacy includes, but is not limited to, being vigilant and cognizant of factors that may affect people's lives, developing prevention measures, and promoting these measures.² Therefore, advocacy and prevention are strongly intertwined in benefiting individuals. Health advocates are opportunity seekers who highlight issues or problems and present them to the community, such as through promoting positive attitudes or discouraging negative attitudes toward health issues. The prevention of undesired behaviors should be a priority among advocates. The main priorities are noticeable aspects followed by hidden aspects, although these hidden concerns are often overlooked or completely undetected. Therefore, advocates must have a clear strategy to promote these issues, which are usually missed.¹

Health advocacy is an essential competency mandated by the Saudi Commission for Health Specialties (SCFHS) for all pediatric residency trainees.³ To advocate for issues or actions, multiple methods can be used, including raising awareness to enacting laws. Health advocates must use the specific process that has the greatest effect to achieve their goals.

Their efforts should be well planned, deliberate, and sustained. These actions will differ among disciplines, and some actions may work for one community but not others. The purpose of this article is to describe the opportunities and challenges faced by health advocates practicing in KSA in the field of traditional medicine—a common health issue affecting children in the community. Here, we conducted a literature review in PubMed with the keywords alternative medicine, traditional medicine, prevention, KSA and advocacy. All articles identified in PubMed through this search were included, and no articles from other countries with similar cultural backgrounds were excluded. This work should help health

advocates understand Saudis' social determinants, culture, and attitudes, as well as how these elements affect children's health advocacy. Finally, we discuss children's health status.

Traditional medicine in KSA

The practice of traditional medicine in KSA is widespread and accepted by society at large.⁴ Traditional practitioners are present in every community, and most people not only trust them but also seek their advice, particularly during illness. Traditional health practices performed in KSA include cauterization with metal instruments, herbal treatments based on a single dietary herb or a cocktail of medicinal herbs, and spiritual treatment performed by healers. Other practices include self-spiritual treatment by recitation of the Quran or drinking water over which the Quran has been recited. In 2019, Alrumayyan et al. reviewed the use of traditional medicine by pediatric neurology patients and found that its prevalence was 42%. The traditional medicines for treating various neurological diseases comprised 66% spiritual medicine, 30% traditional herbal medicine, and 26% cauterization.⁵

In KSA, children are frequently subjected to traditional cauterizations; few children are spared cauterization at any stage of childhood. Interestingly, the cauterization methods are similar in terms of the heated instrument used, and the frequency and sites of cauterization wounds, regardless of differences in patient complaints (Figure 1). Beyond the pain caused by second- or third-degree burns, these cauterization wounds place children at risk of secondary infections and cosmetic problems in the short and long term, respectively. Traditional cauterization practices do not follow basic principles of infection control; thus, wound infection is a common complication. A study conducted in the Aseer province of KSA has examined the clinical and social determinants of 150 infants who had received cauterization therapy for nonspecific symptoms and found that 6.7% had complications requiring hospitalization.⁶ In another local study, traditional cauterization was observed in 12% of adult patients with bronchial asthma and was significantly associated with partially controlled or uncontrolled asthma.⁷ In a household survey, Elosemy et al. have studied alternative medicine in the Riyadh region and found that 22% of participants, most of whom were older than 60 years of age, reported using cauterization on themselves or family members.⁸ Although the level of knowledge and awareness among young parents is improving, older family members and the community at large may pressure them to accept cauterization as a therapy for various symptoms and diseases in childhood. Studies on the incidence, prevalence, and consequences of cauterization are very limited, in contrast to those on herbal or spiritual therapy; moreover, we identified no studies describing the attitudes and beliefs regarding this practice among the Saudi population, and whether the practice is changing.

Traditional (herbal) facilities are distributed fairly evenly throughout the country, mainly in rural areas and small cities (Figure 2). These facilities offer many remedies, which consist of mixtures of various herbs at different concentrations depending on the disease to be treated. Traditional herbal healers who work in these facilities provide therapeutic advice for a variety of symptoms, regardless of patient age or underlying health status. As health practitioners, we

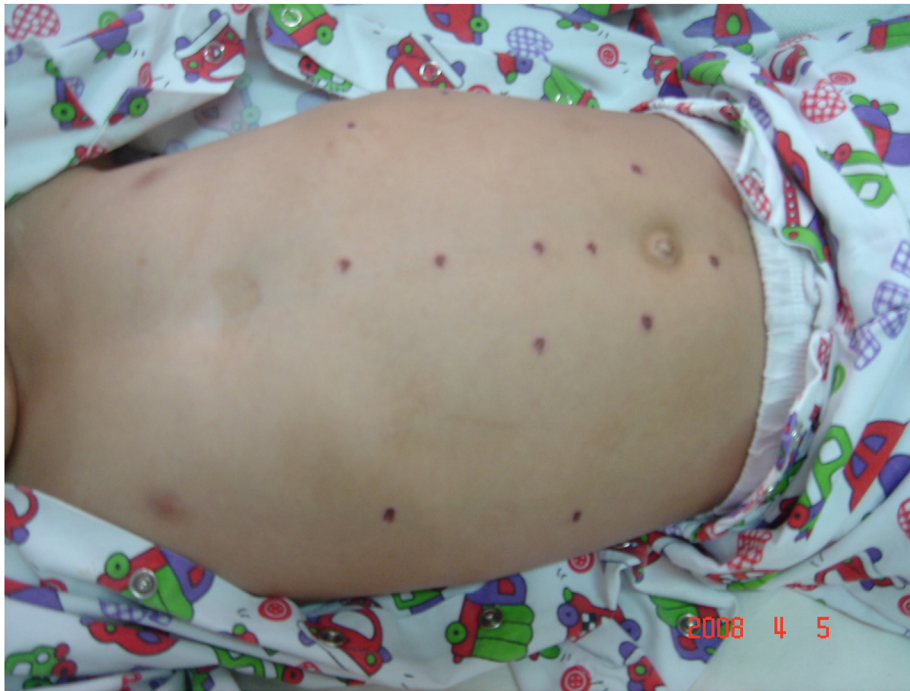


Figure 1: Multiple cauterization marks over a child's abdomen, distributed in a specific pattern for the treatment of infantile colic.

encounter herbal mixes that cause serious symptoms and complications in young children. For example, using teething powder for infants, which has been found to contain lead, can cause encephalopathy, unexplained convulsions, and even death.⁹ The usual consumers or victims of these herbs and traditional remedies are patients who have chronic illnesses or end-stage lethal diseases, such as genetic disorders or cancer. Many studies involving adults with chronic diseases, particularly diabetes mellitus and cancer, have found that the use of herbal medicine is very common, ranging from 60% to 88%; most (55%) patients prefer using herbs instead of prescribed drugs.^{10–12} In local studies, women have been found to use traditional herbal medicine more frequently than men.^{8,13} A survey performed during hospital visits in the United Arab Emirates has reported that 28.9% of patients had used complementary and alternative medicine (CAM), and women and older individuals had a higher probability of using CAM in their lifetimes.¹⁴ Of those who used CAM, 70% did so without consulting their physician, and 75% were not sure whether CAM was based on scientific evidence.¹⁴ In a recent survey from KSA, 94% of 1300 respondents reported using herbal medications for medical and therapeutic purposes¹⁵; the respondents said that they used herbal medications on the basis of traditional beliefs (57%), family recommendations (34%), or herbalists' advice (9%).¹⁵ Forty-six percent had experienced various adverse effects, such as diarrhea and allergic reactions.¹⁵ Another study has found that the prevalence of traditional medicine and CAM among the Saudi Arabian population is as high as 75%.¹⁶ Importantly, the herbs used as medications are not regulated or supplied by the Ministry of Commerce or the Ministry of Health (MOH). Therefore, despite the herbalists' claims, their origin and actual content are unknown.

Spiritual healing, a form of CAM, is commonly performed, respected, and highly accepted in KSA, given the society's

highly religious nature. Alrowais et al. have reviewed data from national studies (including 36 research articles) on CAM published in KSA between 2000 and 2015.⁴ The most commonly used traditional practice was spiritual, such as prayer and reciting the Quran on its own or over water.⁴ Similar evidence has been reported by Jaziah et al., in a study in which 88% of patients with cancer used non-dietary traditional remedies that were mainly religious, including reciting the Quran (74.8%), prayer (16%), supplication (13%), and other religious practices (3.7%).¹² Some patients rely on spiritual healers (sheikhs) to perform prayers or recitations for them. Some spiritual healers are officially authorized by the government, and their medicinal services are provided through health care facilities. Most hospitals in KSA have an Islamic religion office that provides spiritual healers who can recite the Quran to patients. The health care provider usually orders this service for terminally ill patients according to their requests or those of their families. These healers follow the hospital's specific rules, regulations, and guidelines. However, the public does not have access to this coordinated service and must instead use unauthorized spiritual healers. Consequently, many unofficial healers are distributed throughout the country, mainly in small villages and cities. Some of these spiritual/religious healers are improperly trained, thus resulting in a conflict between their work and modern medicine. Many of these healers may advise stopping crucial medical treatments and may perform physical acts that can be very highly harmful to patients.

Challenges in traditional medicine advocacy

Treatment of benign self-limited conditions

Treating benign self-limited conditions in children with herbal medications or cauterization is a challenge, because



Figure 2: Typical herbal remedy shop with labeled products on the shelves.

parents associate the resolution of symptoms with the use of these methods, thus resulting in perpetuation of this practice. A common example is infantile colic, a benign condition that manifests as paroxysmal crying for more than 3 h a day, more than 3 days per week, and for more than 3 weeks. Colic is common among infants, with a prevalence of 10–40% globally.¹⁷ Its cause has not been identified, and no approved treatment exists to relieve it, thus posing substantial frustration to parents. In parents' efforts to treat this benign condition, many infants become victims of cauterization and toxic ingestion of unknown herbal mixtures. In one study, pediatricians and general practitioners across middle-eastern and northern Africa have found that 25% of parents reported giving their babies herbal medications, and 0.8% reported cauterizing their babies before seeking medical help to relieve infantile colic.¹⁸ Another study has reported that 51.8% of mothers use herbal medications for infantile colic.¹⁹ Anzaroot (*Astragalus sarcocolla* Dymock) is a well-known herb in KSA used to treat infantile colic, abdominal pain, and the common cold.²⁰ This herb has been reported to cause acute hepatitis and hepatic encephalopathy.²⁰ In our hospital, we encounter patients with acute hepatitis and hepatic failure after the ingestion of Anzaroot to relieve infantile colic. Identifying these patients across the Kingdom remains difficult, in the absence of a national registry of complications from herbal ingestion and the catastrophic consequences of such ingestion.

Culture and beliefs

The acceptance of traditional medicine in Saudi society has been attributed to many factors, such as the general success and popularity of alternative medicine, the public's preference for natural materials over chemicals, the failure of certain medical treatments, dissatisfaction with physicians'

diagnoses, and the long waiting times to see physicians.²¹ Strong communal beliefs regarding traditional medicine, coupled with a lack of awareness regarding the possible catastrophic adverse effects of this practice, add to the challenge. These factors pose an additional burden to health advocates practicing in the Saudi community.

Health care facilities and national legislation

Although the Saudi MOH has a dedicated department for complementary medicine, formal education and training in traditional medicine or CAM for health care practitioners or people interested in this field remain lacking.²² Moreover, awareness the different spiritual healing practices is insufficient among physicians themselves, despite the very strong religious background of such practices in Saudi culture. In the absence of well-equipped authorized facilities, proper training programs, and well-structured referral systems, accommodating these traditional practices in the healing process into modern medicine poses a major challenge. Furthermore, health care delivery varies in quality among centers and is unevenly distributed across the regions and cities of KSA. Outside the major cities, a great need remains for physicians; moreover, sophisticated health care resources, and specialized diagnostic and laboratory tools are lacking.²³ Therefore, medical practice in rural areas is a challenging and unappealing prospect to physicians. Consequently, traditional medicine may spread in these areas and be excessively relied upon because it is more accessible. The greatest challenge facing health advocates in this field is the lack or deficiency of policies regulating the practices of traditional and spiritual healers in hospitals and clinics, thus creating difficulties and possibly conflicts in the community. Notably, no national legislation or bylaws regulate traditional medicine in KSA. Therefore, the people who perform these practices are not mindful of preventing

complications. Despite efforts by the MOH to develop an efficient health care system, communication between health care practitioners and legislators remains limited, thus resulting in inadequate laws and guidelines pertaining to controlling certain aspects of traditional medicine across the Kingdom. An additional challenge is the lack of a national data collection strategy regarding the mortality and morbidity associated with traditional medicine (e.g., toxicity after ingestion of herbs or cauterization complications).

Child protection

Another challenge faced by health care practitioners working with and for children is the issue of child protection in cases involving risks and complications due to traditional medicine. Child protection from abuse and neglect is a relatively new term that has arisen during the past 50 years.²⁴ Many efforts to safeguard children are now made both locally and internationally, because abuse and neglect can affect children's long-term physical and mental well-being.²⁵ In KSA, many health care providers advocate for child protection and the prevention of violence against children.²⁶ The management of child mistreatment in the health care system has improved dramatically over the past 20 years in Saudi society.²⁶ One major advance in this field has been the approval of two bylaws: the child protection bylaw in 2014 and the bylaw on the protection from violence and abuse in 2013.²⁷ The child protection bylaw is derived from the United Nations Convention on the Rights of the Child (UN-CRC), which was signed and approved by KSA in 1996. The bylaw's main objective is based on article three of the UN-CRC, which states: "In all actions concerning children, whether undertaken by public or private social welfare institutions, courts of law, administrative authorities or legislative bodies, the best interests of the child shall be a primary consideration".²⁸ Assessing the best interests of a child requires evaluating and balancing "all the elements necessary to make a decision in a specific situation for a specific individual child or group of children".²⁹ Therefore, child protection teams in local hospitals face challenges in implementing this rule, because they must decide whether the harm caused to children by traditional medicine constitutes child mistreatment.

Child protection is a complex issue with many challenging aspects, because it is strongly connected to culture, social beliefs, and family dynamics. Of all risk factors affecting children's well-being, social norms are the most difficult to alter. Although having national legislation could help protect children, implementing it in the face of contradictory cultural norms will be a major challenge. Furthermore, health care practitioners are not always aware of international and national bylaws that protect the rights of children. Nonetheless, practitioners should have leading roles in advocating for children's health and safety, protecting them from harmful practices, and ensuring that every action taken is in the "best interest of the child," according to the UN-CRC declaration.

Collaboration and coordination among services

In KSA, another challenge in advocacy is the lack of coordination among services aimed at preventing traditional

practices and enhancing children's well-being. In 2019, Almuneef et al. studied the readiness of KSA to implement large-scale prevention programs, by using a well-established WHO instrument for child abuse prevention.³⁰ The instrument for key informants and advocates working in child protection contains questions pertaining to 10 dimensions of prevention.³⁰ The author found an overall prevention readiness score of only 42%; the lowest dimension among the 10 dimensions tested was the coordination among different institutions.³⁰ Some health care facilities have begun to address the problem of traditional medicine use for children in collaboration with non-governmental organizations. They have conducted research and used the data to raise awareness and implement prevention programs. However, this collaboration remains in its infancy, and the outcomes have not been evaluated.

In conclusion, we believe that harmful traditional medicine practices remain widely used in KSA, given the insufficient rules and regulations to standardize these practices and overcome their adverse effects. Below, we list several recommendations that should be considered by the MOH.

Recommendations

Considerable efforts have been made to control the use of traditional medicine in KSA. However, the success of these efforts depends on the existence of certain factors, such as legislation, sufficient human resources, and a budget to advocate against traditional practices. Proper coordination and networking among various governmental and non-governmental agencies are crucial, particularly collaboration between the MOH and the Ministry of Commerce. Furthermore, coordination among non-governmental organizations, scientific societies dedicated to children's health, and training institutes are important to increase awareness, conduct research, and improve data collection. By combining these forces, we may be able to change the attitudes of the community in the long term.

1 Training and improving knowledge

In examining the challenges regarding the use of traditional medicine, we can infer the value of advocacy in KSA. Educators and trainees under-recognize the value of health advocates, which leaves this role unclear in undergraduate and postgraduate curricula. A lack of incorporation of the concept of health advocacy into curricula and inadequate integration of educational programs pushes health advocacy to the peripheries. In KSA, the SCFHS is responsible for evaluating and qualifying trainees and setting the rules and standards for the practice of health care professionals. Moreover, the Commission controls the registration of practices, by issuing licenses and approving certifications. However, its resources may be insufficient to address all these responsibilities, thus adding to the challenge.

Teaching health advocacy is an evolving process and is not predetermined. Learning is a continual process. This form of teaching is sensitive to the time and place of the practice. Established objectives and clear expectations are required for health advocacy teaching. Many studies have reported increased child advocacy and health awareness

among residents after implementation of a short course in advocacy.^{31,32} Thus, residents and health care workers are willing to advocate but may not know how or understand the importance of advocacy.³³

In practicing health advocacy, teachable moments should not be missed by health advocates. Advocates may highlight the relevance of the subject to the trainee's practice, the individual patient, and the community. Unfortunately, health advocacy is perceived as charity work and thus is not valued by some trainees and faculty members.³⁴ Because no fixed structure exists to teach health advocacy in KSA, use of role models remains the only way to accomplish teaching.

The CAM department and the MOH have important roles in spreading awareness of traditional medicine and herbal medicine use, and increasing knowledge regarding the consequences and adverse effects of these methods in the community and among health care practitioners. In addition, the MOH and Ministry of Commerce should join forces to control the harmful herbs distributed through facilities in various locations. Professionals should use all social media channels to increase awareness in the community and emphasize the right way to seek medical services. The awareness campaign should focus on the adverse effects of traditional medicine in delaying accurate diagnosis and illustrate their potentially fatal outcomes, as supported by data from local studies.

2 Data collection and enactment of bylaws

A national registry containing information on patients who had adverse effects to traditional medicine should be instituted to understand the current status and plan for future actions. Establishing standardized policies and procedures at the institutional level to address patients with adverse reactions and clarify who is responsible at the MOH and Ministry of Commerce is an essential first step to preventing these problems. Standardization will improve the reporting process, facilitate patient care, and ideally improve outcomes of complications.

Additionally, the approval of national legislation against harmful traditional medicine and controlling CAM practice would help limit currently unrestricted practices. One important recommendation to improve the system is the registration of medicinal herbal products by Saudi food and drug authorities. The Saudi Drug Registration System is an electronic database that facilitates the registration of medical and herbal products. Introducing a new system of vigilance to ensure that every product is registered would eliminate the risk of harmful products.

Furthermore, proper communication and coordination among health institutions, legislative bodies, and advocates will be mandatory for the process to succeed.

3 Easy access to health care facilities

Increased availability of primary health care facilities and shorter waiting times for consultations would be likely to decrease the use of traditional medicine. KSA's national strategic framework—Vision 2030—focuses on the availability and wide distribution of primary health care facilities and increasing the number of physicians in the growing nation. Another solution is telemedicine, which has been

demonstrated to be effective in many regions and medical facilities, particularly during the COVID-19 pandemic. This technology meets patients' needs, addresses their concerns, increases their awareness, and provides adequate health care support. The use of telemedicine should be expanded to all regions of the Kingdom, thus connecting tertiary care hospitals to peripheral primary care clinics.

4 Behavioral and attitudinal changes

Attitudes toward the unofficial use of traditional medicine may require a long time to change. However, improvements may be gained by increasing awareness of the negative effects of traditional medicine and establishing laws to control traditional medicine and make those who practice it accountable.

Despite progress in understanding and the strengthening of children's health advocacy principles in KSA, these efforts have been limited to several individuals and health care facilities. Expanding physicians' training programs, building capacity, and increasing awareness of the advocacy concept are all essential. These actions could change the attitudes of the public and government toward traditional medicine.

Vision 2030 has addressed advocacy in many programs, making it a cornerstone of this ambitious strategy. Advocacy requires not only effort and commitment, but also time. We believe that the recommendations herein represent a first step forward.

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Conflict of interest

The authors have no conflict of interest to declare.

Ethical approval

Hereby, I, Maha Almuneef, consciously assure that for the manuscript "Child health advocacy in KSA: Traditional medicine as a model" the following are fulfilled:

- 1) This material is the authors' own original work, which has not been previously published elsewhere.
- 2) The paper is not currently being considered for publication elsewhere.
- 3) The paper reflects the authors' own research and analysis in a truthful and complete manner.
- 4) The paper properly credits the meaningful contributions of co-authors and co-researchers.
- 5) The results are appropriately placed in the context of prior and existing research.
- 6) All sources used are properly disclosed (correct citation). Literal copying of text is indicated as such by using quotation marks and giving proper reference.
- 7) All authors were personally and actively involved in substantial work leading to the paper, and take public responsibility for its content.

The violation of the Ethical Statement rules may result in severe consequences. Date: 09/03/2022.

Consent

Consent was obtained from the parents of the child in Fig 1 for a picture of his wounds to be taken and published in a scientific journal.

We ensured that the patient cannot be identified from the picture.

Authors contribution

All authors (JQ, AB, and MM) acknowledge that all persons designated as authors qualify for authorship and have verified the article for plagiarism. If plagiarism is detected, all authors will be held equally responsible and will bear the resulting sanctions imposed by the journal thereafter.

All authors have contributed substantially to the manuscript (literature review, outline, and manuscript writing).

All authors have met the criteria below:

- * Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work
- * Drafting the work or revising it critically for important intellectual content
- * Final approval of the version to be published
- * Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

All authors have critically reviewed and approved the final draft and are responsible for the content and similarity index of the manuscript.

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