

"Oru-ỌmỌ": A Case Series of a Novel Transient Pruritic Dermatitis in Nigerian Nursing Mothers

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Abstract

"Oru-ỌmỌ," a Yoruba term meaning "heat from the child," refers to a pruritic, self-limiting dermatosis observed on the volar forearms of nursing mothers in Nigeria. Although often misdiagnosed as miliaria, its clinical features and chronicity suggest a distinct pathophysiological entity. Despite its local recognition, the condition is underreported in scientific literature, and its aetiology remains poorly understood.

We report three cases of this dermatosis in lactating mothers attending a dermatology clinic in Ile-Ife, a Yoruba-speaking setting in Southwestern Nigeria. All presented with symmetrical, flat-topped erythematous papules on the volar forearms, with two reporting additional involvement of the chest and interscapular regions. Lesions appeared 2-3 months postpartum, worsened with heat and direct skin contact with the infant's scalp and responded to topical corticosteroids. Two mothers reported similar episodes in previous postpartum periods with spontaneous resolution following weaning.

Oru-ỌmỌ is a distinct, self-limiting dermatosis requiring clinical recognition and differentiation from miliaria. The clinical response to topical corticosteroids and the distinct anatomical distribution suggest a hypersensitivity and occlusive mechanism potentially linked to infant hair care products. Further research is needed to elucidate its pathogenesis and inform culturally sensitive care.

Keywords: Nursing Mothers Dermatitis, Breast Feeding, Miliaria, Hypersensitivity, Contact Dermatitis

Oru-ỌmỌ: Une série de cas d'une dermatose prurigineuse transitoire inédite chez des mères allaitantes nigérianes

Titre abrégé : Oru-ỌmỌ : Une dermatose inédite chez les mères allaitantes

Résumé

« Oru-ỌmỌ », terme Yoruba signifiant « chaleur de l'enfant », désigne une dermatose prurigineuse et spontanément résolutive, observée sur la face antérieure des avant-bras des mères allaitantes au Nigéria. Bien que souvent confondue avec la miliaire, elle présente des caractéristiques cliniques et une chronicité qui suggèrent une entité physiopathologique distincte. Malgré sa reconnaissance locale, cette affection est sous notifiée dans la littérature scientifique et son étiologie demeure mal comprise.

Nous rapportons trois cas de cette dermatose chez des mères allaitantes consultant dans un service de dermatologie à Ilé-Ifé, une région Yoruba du Sud-ouest du Nigéria. Toutes les patientes présentaient des papules planes érythémateuses sur la face antérieure des avant-bras à disposition symétriques. Deux d'entre elles rapportaient une atteinte supplémentaire du thorax et de la région interscapulaire. Les lésions sont apparues 2 à 3 mois après l'accouchement, s'aggravant avec la chaleur et le contact direct avec le cuir chevelu du nourrisson, et répondaient aux corticostéroïdes topiques. Deux mères ont rapporté des épisodes similaires lors de précédents accouchements, qui se sont résolus spontanément après le sevrage.

L'oru-ỌmỌ est une dermatose distincte et spontanément résolutive, nécessitant un diagnostic clinique et une différenciation de la miliaire. La réponse clinique aux corticostéroïdes topiques et la distribution anatomique particulière suggèrent un mécanisme d'hypersensibilité et d'occlusion, potentiellement lié aux produits capillaires des nourrissons. Des recherches supplémentaires sont nécessaires pour élucider sa pathogénie et adapter la prise en charge aux spécificités culturelles.

Mots-clés : Dermate de contact, Allaitement maternel, Miliare, Hypersensibilité, Dermate de contact

Background

Traditional grooming practices, such as the application of oils to the scalp, rooted in cultural norms, play a significant role in infant care among indigenous African populations, particularly among Yoruba-speaking communities in southwestern Nigeria [1–3]. While these practices are often beneficial for infant well-being, anecdotal observations also suggest that they may inadvertently contribute to dermatological conditions in both the mother and the child [1,4,5].

"*Oru-Ọmọ*", literally translated as "heat from the child" in Yoruba, is a culturally recognized but medically undocumented transient pruritic dermatosis that is observed exclusively among nursing mothers. The condition is traditionally attributed to heat or warmth emitted by the infant during nursing. Due to its symptom overlap with miliaria, particularly the aggravation by heat, it is frequently misdiagnosed. However, preliminary clinical observations indicate that "*Oru-Ọmọ*" may possess distinct morphological and etiological characteristics.

This report aims to provide the first detailed clinical description of *Oru-Ọmọ*, to highlight its differentiation from miliaria, and to underscore the importance of cultural context in dermatological diagnosis and management.

Methods

Three cases of distinctive symmetrical papular rashes consistent with the cultural description of "*Oru-Ọmọ*" were identified among lactating mothers attending a dermatology clinic in Ile-Ife, Nigeria. Each patient underwent a structured clinical assessment, including a comprehensive medical history, a physical examination, and photographic documentation of lesions. Clinical findings were compared with published descriptions of miliaria. Although histopathological evaluation via skin biopsy was recommended to support diagnostic differentiation, all three patients declined the procedure. Treatment regimens and clinical outcomes were documented. Ethical approval was

obtained from the Ethics and Research Committee of the Obafemi Awolowo University Teaching Hospitals Complex under Protocol Number ERC/2022/08/04.

Case 1.

A 35-year-old multiparous Yoruba mother of a 4-month-old female infant was referred from an infant welfare clinic with a presumptive diagnosis of miliaria. She reported a 3-week history of pruritic rashes localised to the volar aspects of both forearms. Symptoms were exacerbated by prolonged carrying of her infant and environmental heat. There were no associated systemic symptoms, febrile episodes or medication use. The patient frequently observed oily residue on the affected skin areas following close contact with her infant's scalp, which she associated with symptom exacerbation. She regularly applied olive oil to the child's scalp; a practice rooted in the belief that such oils help maintain the integrity of the anterior fontanelle.

Her medical history was notable for allergic rhinitis, with no other comorbidities. She reported a similar rash during a prior lactation period beginning five months postpartum and resolving only after weaning at 12 months.

On examination, multiple flat-topped, slightly pigmented papules with areas of post-inflammatory hyperpigmentation were symmetrically distributed from the cubital fossae to the wrists (**Figure 1a**). No other dermatological or systemic abnormalities were noted. Laboratory investigations, including complete blood count, erythrocyte sedimentation rate (ESR) and fasting blood glucose, were within normal limits. The patient declined a skin biopsy, citing spontaneous resolution in a previous episode.

She was counselled on the potential role of hair oils in the pathogenesis of her skin condition and advised to place a breathable and absorbent cotton cloth between her skin and the infant's scalp during feeding and burping. Topical 1% hydrocortisone cream was prescribed for twice-daily application for two weeks. At a 4-week

follow-up, the lesions had markedly improved, though residual hyperpigmentation persisted. She was subsequently lost to further follow-up.

Case 2.

A 25-year-old primiparous mother presented with a 3-month history of progressively worsening mildly pruritic rashes affecting her forearms, mid-chest and interscapular region. The eruption began insidiously when her child was 4 months old. She noted exacerbation with heat and had attempted self-treatment using mentholated dusting powder, with minimal relief. She reported liberal daily application of baby oils to her infant's scalp but denied any prior allergic reactions to hair or cosmetic products. There was no personal or family history of atopy.

Clinical examination revealed numerous erythematous papules densely distributed on the volar forearms, anterior chest and upper back. There were no signs suggestive of atopic diathesis, and all other clinical findings were unremarkable. The patient declined a skin biopsy. She was treated with topical 1% hydrocortisone cream twice daily for 3 weeks and counselled to minimize direct skin contact with her infant's oiled scalp. Clinical improvement was observed at subsequent review with resolution of active lesions by the 3rd week of treatment.

Case 3.

A 42-year-old multiparous nursing mother of a 6-month-old infant was referred from the general outpatient clinic with a 3-month history of a persistent pruritic eruption localized to the volar forearms, chest and upper back. The rash was aggravated by heat and was initially diagnosed as miliaria. She reported experiencing similar episodes during her two previous postpartum periods, with spontaneous resolution typically occurring between 12 and 14 months postpartum, corresponding with the period of child weaning and increasing infant independence.

The patient reported a strong familial pattern, noting that her mother experienced similar

postpartum rashes. Her medical history was notable for allergic rhinitis and a food allergy to okra. However, no other significant systemic conditions were identified.

Her infant's grooming routine included frequent application of oils, including mineral-based engine oil, to the scalp to moisturise and preserve hair texture. Additionally, the child was often wrapped in multiple layers of clothing during and after breastfeeding based on cultural beliefs about preventing colds. The patient reported noticing visible greasy residue on her forearm and chest after each breastfeeding session, which she habitually rubbed into her skin.

Dermatological examination revealed multiple discrete, flat-topped erythematous and greyish papules measuring about 1-2 mm on the volar forearms bilaterally, with interspersed hyperpigmented planar papules (presumed to be older lesions) and mild surface scaling. Similar lesions were noted on her chest and interscapular region (**Figure 1b and 1c**). These areas corresponded precisely with anatomical sites frequently in contact with her infant's scalp during nursing. No other body regions were affected.

Laboratory investigations, including complete blood count and ESR, were within normal limits. The patient declined a skin biopsy. She was prescribed topical hydrocortisone cream twice daily for 2 weeks and advised to limit direct contact between the infant's oiled scalp and her breast during breastfeeding by using an absorbent, breathable cloth. Complete resolution of the lesion was observed at a 4-week follow-up visit.

Discussion

This case series provides the first formal clinical documentation of "*Oru-Ọmọ*", a culturally recognised, transient pruritic dermatosis observed exclusively in nursing mothers in Southwestern Nigeria. Traditionally attributed to "heat from the child", our clinical findings suggest a multifactorial aetiology, closely linked to cultural infant care practices, especially the liberal use of hair oils such as coconut and palm kernel oil,

prolonged skin-to-scalp contact during breastfeeding, and a possible atopic predisposition in affected mothers.

Although *Oru-QmQ* superficially resembles miliaria rubra, especially due to its monomorphic papular morphology and heat-aggravated nature, a detailed clinical history and pattern recognition reveal several distinct features that delineate it as a separate clinical entity. The key differentiating characteristics include:

Epidemiological and Temporal Profile: *Oru-QmQ* manifests exclusively in lactating mothers, presenting insidiously between 3-4 months postpartum and often resolving spontaneously following weaning. In contrast, miliaria occurs acutely following heat exposure or febrile episodes and is seen across all age groups and genders [6,7].

Anatomical distribution: - The lesions of *Oru-QmQ* are typically confined to the volar forearms, central chest, and interscapular region, as shown in **Figure 2**. This distribution corresponds with areas of maternal skin in frequent direct contact with the infant's oiled scalp during nursing episodes or carrying. Miliaria, by contrast, commonly involves broader anatomical regions, including the trunk, neck, and face, irrespective of contact patterns.

Lesion morphology: *Oru-QmQ* presents as monomorphic, flat-topped papules ranging in colour from erythematous to greyish, with minimal scaling and no follicular sparing. Whereas miliaria is typically vesicular, papulovesicular, or pustular, depending on subtype, it classically spares hair follicles [7]. **Figure 3** presents a comparative visual juxtaposition of *Oru-QmQ* (A) and Miliaria (B) on the backs of two nursing mothers.

Clinical course and response to treatment: *Oru-QmQ* exhibits a relapsing pattern and responds promptly to topical corticosteroids. Miliaria usually resolves spontaneously with cooling and removal of occlusive triggers, and rarely necessitates pharmacologic intervention [7].

Pathophysiology: Unlike miliaria, which results from eccrine duct obstruction [7], *Oru-QmQ* appears to represent a localized inflammatory dermatosis with complex aetiopathogenesis. A proposed mechanism involves irritant or allergic contact dermatitis, potentiated by repeated exposure to comedogenic substances (e.g., coconut oil, engine oil), friction from the infant's scalp, and sustained warmth during breastfeeding. Notably, two of the cases presented reported a personal history of atopy, and one had a positive family history of *Oru-QmQ*, suggesting a possible hypersensitivity predisposition. Table 1. Provides a comparative summary of the clinico-epidemiological features of *Oru-QmQ* and Miliaria.

Furthermore, our findings strongly imply that cultural grooming practices contribute to the pathogenesis of *Oru-QmQ*. All three cases shared specific infant care practices that appear to contribute to disease onset and propagation. These include:

- Frequent application of oils such as olive oil, baby oil and even engine oil to the infant's scalp. These substances may act as comedogenic agents or irritants, disrupting maternal skin barrier function. Of note, vegetable oils rich in oleic acid, such as olive oil and soybean oil, have been shown to impair epidermal barrier integrity and delay barrier recovery, particularly in compromised skin [8,9].
- Prolonged occlusive contact between maternal skin and the infant's scalp during breastfeeding, baby carrying and routine caregiving. This creates a warm, humid, friction-prone microenvironment, which may potentiate follicular irritation and promote inflammatory responses, particularly under conditions of impaired barrier function or atopic predisposition [10].
- Cultural beliefs and thermal care practices, such as wrapping infants in multiple layers of warm clothing to prevent perceived cold exposure and the routine application of

copious amounts of oil on the scalp to protect the anterior fontanelle [4,5]. While culturally significant, these practices inadvertently create localized occlusion and heat retention in areas most often in contact with the infant scalp - typically the chest, forearms and upper back during breastfeeding, and carrying of the baby on the back (Figure 2c)

Collectively, these findings support the hypothesis that *Oru-Ọmọ* represents a culturally mediated, localized form of irritant or allergic contact dermatitis, potentiated by repetitive exposure to oil-based substances and heat rather than a primary eccrine duct disorder as seen in miliaria.

The favourable clinical response of the reported cases to topical corticosteroids, coupled with avoidance of direct contact with oiled infant scalps, further corroborates an inflammatory rather than eccrine-based pathology. Patient education addressing the potential link between infant grooming practices and maternal symptoms proved effective and well-received. Simple modifications, such as using breathable absorbent textiles during nursing to reduce direct occlusive contact, were successfully adopted by affected mothers, reinforcing the importance of integrating cultural insights into dermatologic care and public messaging.

Implications for Clinical Practice and Research:

This report highlights the critical need for increased clinical awareness of culturally mediated dermatoses. Misclassification of *Oru-Ọmọ* as miliaria may not only hinder appropriate therapeutic intervention but also contribute to prolonged patient discomfort and anxiety. The recurrent nature of the condition and the familial clustering observed in one case suggest a possible underlying genetic or atopic predisposition, meriting further investigation.

To further elucidate the pathophysiology and epidemiology of this distinctive dermatosis, we recommend the following research priorities: [1] dermoscopic and histopathological studies to

elucidate the underlying inflammatory or immunologic mechanisms; [2] patch testing to identify potential allergenic or irritant components in commonly used infant hair oils and grooming agents; and [3] population-based and ethnographic studies to determine prevalence rates and critically examine cultural practices surrounding infant care, with specific attention to their unintended dermatological consequences for mothers.

Conclusion

Oru-Ọmọ represents a culturally linked, transient papular dermatosis in nursing mothers characterized by a distinct clinical presentation, a recurrent postpartum course, and a strong association with traditional infant grooming practices. The lack of vesicular lesions, the postpartum onset, and the role of cultural nursing practices support its distinction from miliaria.

Recognizing this condition as a unique dermatological entity is critical to avoiding misdiagnosis, improving patient outcomes and promoting culturally informed dermatological care in African settings. Further research is warranted to elucidate the epidemiology and underlying mechanisms of "*Oru-Ọmọ*" and to develop targeted interventions that support maternal and infant health.

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Image Generation and Ethical Disclosure

The images presented in **Figure 2** were generated using Microsoft Copilot (DALL·E, OpenAI) for illustrative purposes only. They do not depict real patients or identifiable individuals. The images were designed to accurately represent the typical anatomical distribution and contact-related patterns of pruritic symmetrical papular eruptions (*Oru-Ọmọ*) as observed clinically. Their use complies with ethical standards for research publication, as no personal data were collected and no human subjects were involved in creating these images.

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Tables and Figures

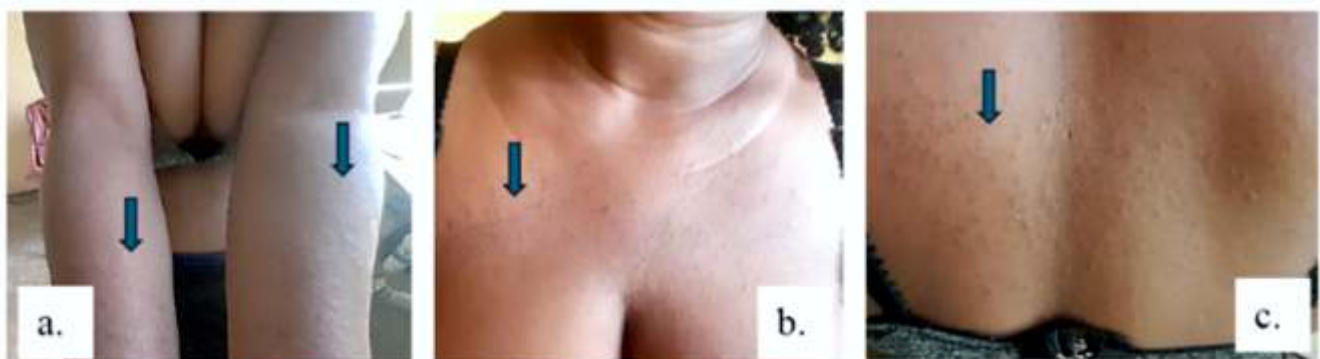


Figure 1. Characteristic appearance of "Oru-QmQ" (blue arrows) in Nursing mothers, characterized by erythematous or greyish flat-topped papules on the volar forearms (a), chest (b) and interscapular area (c).

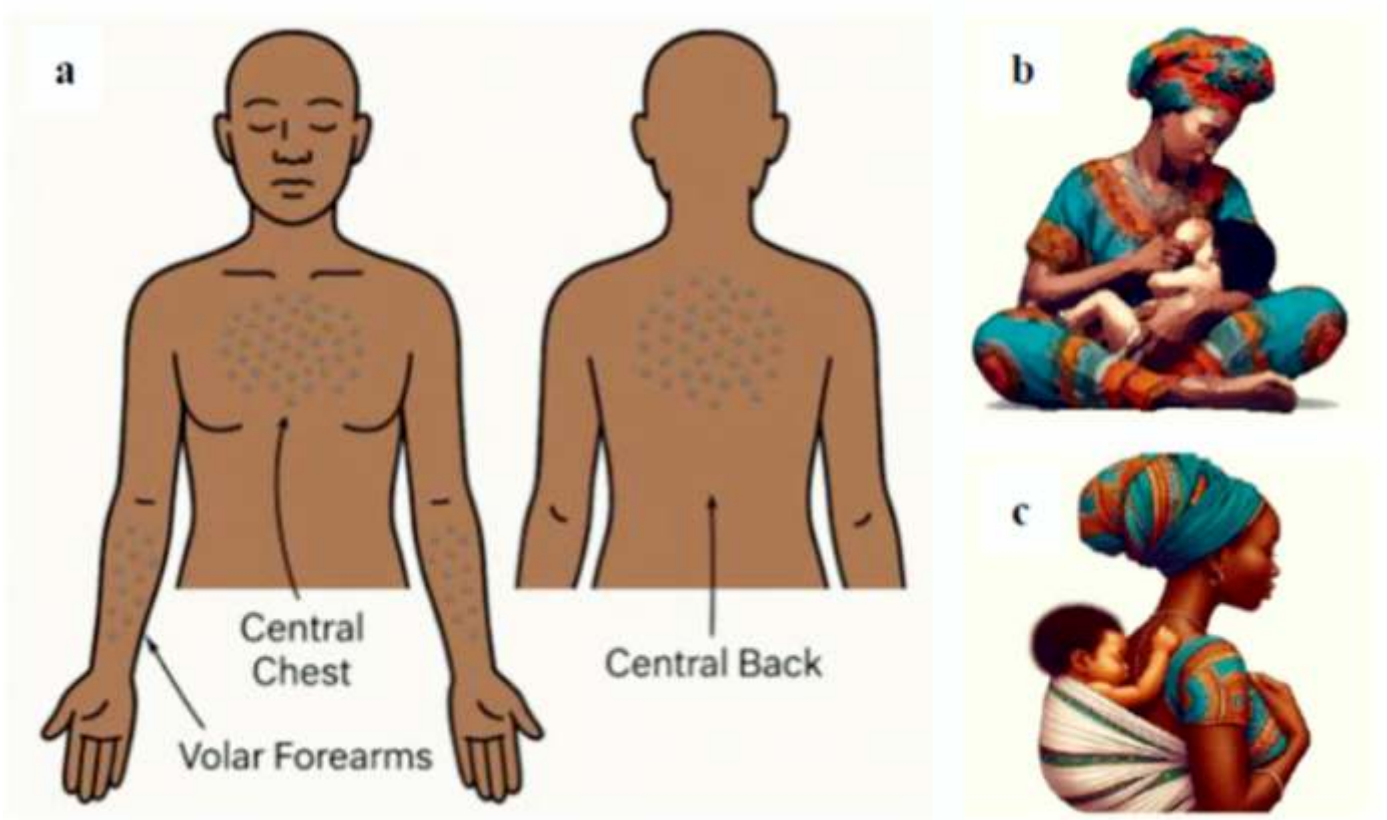


Illustration generated using Microsoft Copilot (DALL·E, OpenAI)

Figure 2. Classical distribution of pruritic symmetrical papular eruptions (Oru-Qmọ) in nursing mothers (a), with corresponding areas of infant scalp contact during routine carrying (b) and breastfeeding (c), illustrating the typical contact-related pattern of involvement.



Figure 3. Comparison of gross-morphological features of Oru-Qmọ (A) with Miliaria (B) on the backs of two nursing mothers.

Table 1. Clinico-epidemiological comparison of *Oru-QmQ* and Miliaria

| Feature | <i>Oru-QmQ</i> | Miliaria[6,7,11] |
|----------------------------------|---|--|
| Population Affected | Occurs exclusively in nursing mothers | Predominantly affects infants, but may occur at any age and affects both genders. |
| Onset | Typically arises insidiously 3–4 months postpartum | Develops acutely within hours to days of heat exposure. |
| Typical Distribution | Volar forearms, central chest and interscapular region | Predominantly affects the face, trunk, neck and flexural areas, |
| Primary Lesion Morphology | Discrete erythematous or greyish (hyperpigmented) flat-topped papules, sometimes excoriated | Vesicles (miliaria crystallina), erythematous papules (rubra), or pustules (pustulosa) |
| Exacerbating Factors | Heat and repeated contact with the infant's oily scalp. | Heat, humidity, and fever are associated with obstruction of the eccrine sweat glands. |
| Symptoms | Mild to moderate pruritus, burning sensation or discomfort | Mild to moderate itching or prickling |
| Clinical course | Self-limiting; typically resolves spontaneously following weaning or with topical corticosteroids | Self-limiting; resolves with cooling and reduced sweating |
| Recurrence | Recurrs in subsequent nursing periods in susceptible individuals | Recurrs in similar environmental conditions |