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| RESEARCH ARTICLE

When a Simple Rash Unmasks a Systemic Crisis: Persistent Inflammatory Skin Lesions Leading to the Diagnosis of Infantile Acute Leukemia

Tiba Taher Khaleefa Khaleefa[1], Alaa Ahmed Mohammed Ahmed[2], Zahra Jamal Hubail[3], Fatema Hur Hasan Albari[4], Mohammad Haytham Alfalayleh[5], Fatima Ebrahim Yousif[6], Ahmad Mohamed Ghoniem[7], Reem Aamer Hubail[8], Fatema Ahmed Jasim[9], Hawra Ali Yahya[9], Shaikha Adel Almahroos[6], Zainab A. Marathi[10], and Abdulrahman Mahmoud Alrifaai[11].

1- First Author, Istinye University.
2- Second Author, University of Medical Science and Technology
3- Southeast University
4- Aljenan Medical Center
5- KIMSHEALTH
6- King Hamad University Hospital
7- Suez Canal University
8- Salmaniya Medical Complex
9- Eastern Health Cluster
10- Jordan University of Science and Technology
11- Hamad Medical Corporation
Corresponding Author: Tiba Taher Khaleefa Khaleefa, **E-mail**: teba_60@yahoo.com

| ABSTRACT

Skin manifestations can be an early but often overlooked sign of systemic malignancy in infancy. We report the case of an eight month old male infant who presented with persistent napkin dermatitis and progressive nodular skin lesions, ultimately leading to the diagnosis of acute leukemia with cutaneous involvement. The child initially developed a diaper area rash that was treated as napkin dermatitis with standard measures but failed to improve and progressively worsened. Weeks later, firm nodular lesions appeared over the hands and forearms, accompanied by pallor, low grade fever, reduced feeding, and increased sleepiness. Physical examination revealed severe diaper dermatitis, multiple non tender nodular skin lesions, pallor, hepatosplenomegaly, and faint bruising. Initial laboratory evaluation showed marked anemia, thrombocytopenia, and leukocytosis with circulating immature cells. Peripheral blood smear raised concern for acute leukemia. Bone marrow aspiration and biopsy confirmed acute leukemia with extensive blast infiltration. Skin biopsy from a nodular lesion demonstrated dermal infiltration by malignant cells, confirming leukemia cutis. Imaging revealed hepatosplenomegaly without focal lesions or evidence of infection. Infectious causes of the skin findings were excluded. Management focused on stabilization, supportive care, and early coordination with pediatric hematology. The infant received blood product support and empiric antibiotics while diagnostic evaluation was completed. Given the confirmed diagnosis and the need for specialized therapy, the patient was transferred to a tertiary pediatric oncology center for definitive management. This case highlights the importance of recognizing persistent or atypical skin findings in infants as potential indicators of serious systemic disease. Failure of common conditions such as diaper dermatitis to respond to standard therapy, especially when accompanied by systemic signs, should prompt thorough evaluation. Early recognition of leukemia cutis can shorten diagnostic delay and improve clinical outcomes in infantile acute leukemia.

| KEYWORDS

Infantile Leukemia, Skin Rash, Dermatitis, Inflammatory lesions, Nodules, Papules, Leukocytosis

| ARTICLE INFORMATION

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Introduction

Acute leukemia is one of the most common cancers seen in infancy and early childhood and remains a major cause of illness and death despite progress in diagnosis and treatment [11,13]. It is a disease marked by uncontrolled growth of immature blood cells in the bone marrow, leading to failure of normal blood formation and involvement of multiple body systems [10,13]. In infants, leukemia often presents differently than in older children, with more aggressive features and early spread outside the bone marrow [11]. Because early signs may be vague and resemble common childhood illnesses, diagnosis can be delayed, which may worsen outcomes [1]. Skin involvement is a known but often overlooked manifestation of leukemia, especially in infants [2,3]. Leukemia cutis refers to infiltration of leukemia cells into the skin, producing visible skin lesions that may appear before blood or bone marrow findings become clear [3]. These skin changes may be the first sign of an underlying systemic disease and can precede the diagnosis of leukemia by weeks [5]. Awareness of this presentation is essential, as early recognition may prompt timely evaluation and diagnosis. The appearance of leukemia cutis is variable and can include papules, nodules, plaques, or diffuse rash [6]. Lesions may be skin colored, red, purple, or brown and can involve the face, trunk, and limbs [2]. In infants, these lesions are often mistaken for common skin conditions such as eczema, infection, or allergic reactions [8]. Because rashes are frequent in infancy and usually harmless, persistent or unusual skin findings may not immediately raise concern for serious disease [1]. This contributes to delays in diagnosis, particularly when the child otherwise appears well. Studies have shown that leukemia cutis is more common in certain types of leukemia, including acute myeloid leukemia and mixed lineage disease, but it can also occur in acute lymphoblastic leukemia [3,5]. In infants, leukemia cutis appears to be more frequent than in older children and adults [6]. The reason for this is not fully understood, but it may relate to differences in skin structure, immune response, and disease biology in early life [3]. Regardless of type, the presence of leukemia cutis usually indicates widespread disease and may be associated with a more aggressive course [6]. Cutaneous involvement in leukemia reflects systemic spread of malignant cells and highlights the close link between skin findings and internal disease [4]. The skin is not an isolated organ but part of the immune system, and changes in the skin often mirror deeper pathology [8]. In hematologic cancers, skin lesions may be the first visible sign of bone marrow failure or organ infiltration [4]. For this reason, careful examination of the skin is an important part of evaluating infants with unexplained symptoms. Diagnosis of leukemia cutis requires a high index of suspicion and usually depends on skin biopsy with supportive blood and bone marrow studies [3]. However, in early stages, routine blood tests may appear normal or show only mild changes [11]. This can further delay diagnosis, especially when skin findings are treated symptomatically without further investigation [1]. Persistent inflammatory skin lesions that do not respond to standard treatment should prompt consideration of systemic disease [8]. Delays in diagnosing blood cancers are well documented and are often related to nonspecific symptoms and overlap with benign conditions [1]. In primary care and pediatric settings, rashes are usually managed conservatively, which is appropriate in most cases [8]. However, failure to improve or progression of lesions should lead to reassessment and further testing [1]. Early referral and biopsy can be critical in identifying rare but serious causes such as leukemia cutis [3]. Infantile acute leukemia often presents with additional features such as poor feeding, irritability, fever, pallor, or organ enlargement [11,13]. These signs may develop gradually and may not be present at initial presentation [11]. When skin lesions are the dominant feature, systemic illness may not be immediately suspected [2]. This emphasizes the importance of viewing persistent skin disease in infants within a broader clinical context. The prognosis of leukemia with skin involvement varies depending on leukemia type, disease burden, and response to treatment [6]. Several studies suggest that leukemia cutis is associated with higher risk disease and poorer outcomes, although survival has improved with modern therapy [3,6]. Early diagnosis remains a key factor influencing outcome, particularly in infants where disease progression can be rapid [11]. Management of leukemia cutis focuses on treatment of the underlying leukemia rather than local skin therapy [3]. Skin lesions often improve with systemic chemotherapy and do not usually require separate treatment [6]. Supportive care remains important to manage infection risk, bleeding, and treatment related side effects [13]. Because infants are especially vulnerable to complications, early diagnosis allows for timely initiation of therapy and supportive measures. Textbook and review literature emphasize the role of the skin as a window to systemic disease, particularly in hematologic cancers [9,12]. Pediatric references stress that unusual or persistent rashes should not be dismissed without careful evaluation [13]. Collaboration between pediatricians, dermatologists, and hematologists can improve diagnostic accuracy and reduce delays [4]. Multidisciplinary care is especially important in rare presentations where experience may be limited. Despite increased awareness, leukemia cutis remains under recognized, especially in infants [2,5]. Many reported cases highlight initial misdiagnosis as benign skin conditions [5].

Case reports continue to play an important role in educating clinicians and reinforcing the need for vigilance when evaluating persistent inflammatory skin lesions [3]. They provide real world examples of how serious disease may present in subtle ways. This case report describes an infant with persistent inflammatory skin lesions that initially appeared benign but ultimately led to the diagnosis of acute leukemia. The presentation underscores the importance of considering systemic causes in infants with unusual or non resolving rashes. By highlighting the clinical course and diagnostic challenges, this report aims to increase awareness of leukemia cutis as an early sign of infantile leukemia. Sharing such cases supports improved recognition, earlier diagnosis, and better outcomes for affected children.

Case Presentation

Patient's history and Physical Examination

This case involves an eight month old male infant who was brought to the pediatric outpatient clinic by his parents because of persistent skin rash and worsening diaper area irritation. He had been well at birth and was born at term through normal vaginal delivery with no complications during pregnancy or delivery. His birth weight was appropriate for age and there were no neonatal intensive care admissions. He had been growing adequately and meeting early developmental milestones until the onset of his current illness. According to the parents, the child developed a rash in the diaper area around six weeks prior to presentation. The rash was initially mild, red, and limited to the perianal region. It was diagnosed as napkin dermatitis at a local clinic and treated with barrier creams and frequent diaper changes. Despite compliance with treatment, the rash did not improve and gradually became more inflamed with areas of skin breakdown. Over the following weeks, the rash extended to involve the groin folds and lower abdomen. The parents noticed that the child became increasingly irritable during diaper changes and cried when the area was cleaned. Approximately three weeks after the onset of the diaper rash, the parents observed new skin lesions over the child's hands and forearms. These lesions appeared as small firm bumps under the skin and gradually increased in number. Some became reddish and slightly raised, while others were skin colored. The lesions did not appear itchy and there was no discharge or ulceration. The parents denied any history of trauma, insect bites, or contact with new soaps or clothing. They initially thought the lesions were related to an allergy or infection and applied over the counter creams without benefit. During this period, the child also developed intermittent low grade fever, reduced feeding, and increased sleepiness. He was breastfeeding less than usual and taking smaller volumes of complementary feeds. There was no vomiting or diarrhea. The parents noted that he appeared paler than before but attributed this to poor appetite. There was no cough, fast breathing, or history of recent infection. There was no history of bleeding from the nose or mouth. The parents did not notice bruises initially but later observed small bluish marks over the limbs. There was no significant past medical history. The child had not been hospitalized previously and had no known chronic illnesses. He was up to date with routine vaccinations for his age. There was no family history of blood disorders, childhood cancers, or immune diseases. The parents were not related. There was no history of exposure to tuberculosis or sick contacts at home. On examination in the clinic, the infant appeared irritable but consolable in his mother's arms. He was pale looking but not in acute distress. His temperature was 37.8 degrees Celsius, heart rate one hundred thirty beats per minute, respiratory rate thirty breaths per minute, and oxygen saturation ninety eight percent on room air. His weight was slightly below the expected percentile compared to prior records. General examination revealed pallor of the conjunctiva. There was no jaundice or cyanosis. The child was alert and responsive to handling. Examination of the skin showed marked inflammation in the diaper area with bright red erythema involving the perianal region, groin folds, and lower abdomen. The skin appeared thickened in places with areas of excoriation but no obvious fungal plaques or satellite lesions. This appearance is shown in Image one, which demonstrates severe napkin dermatitis with poor response to standard care.

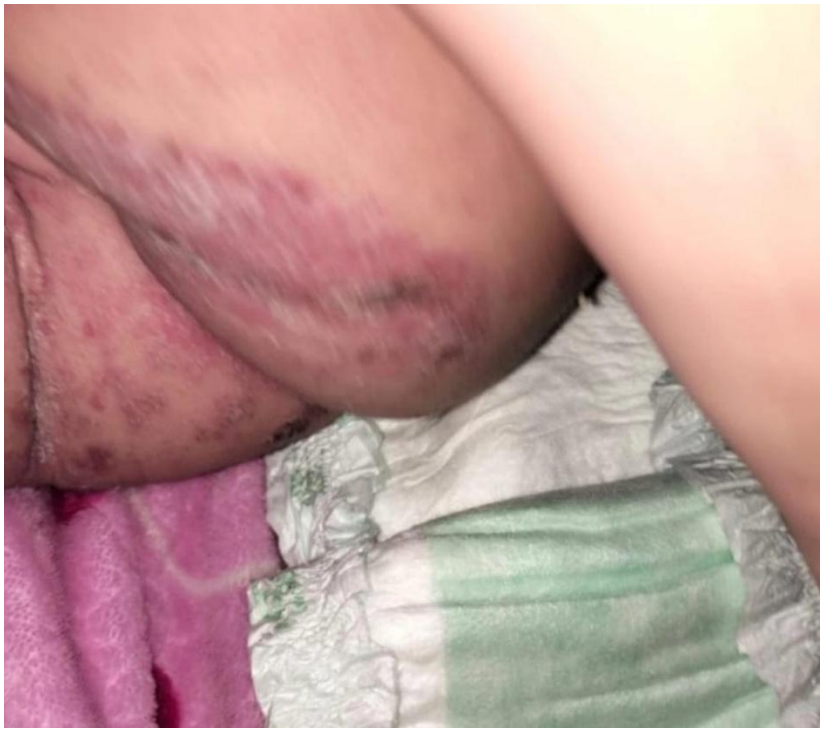

Image 1: demonstrating severe napkin dermatitis with poor response to standard care.

Examination of the upper limbs revealed multiple firm nodular lesions over the backs of both hands and along the forearms. The nodules were non tender, varied in size from a few millimeters to about one centimeter, and had a reddish to violaceous color. The overlying skin was intact with no warmth or signs of local infection. Similar but fewer lesions were noted over the lower limbs. These findings are shown in Image two, highlighting nodular skin lesions over both hands and forearms suggestive of leukemia related skin involvement.

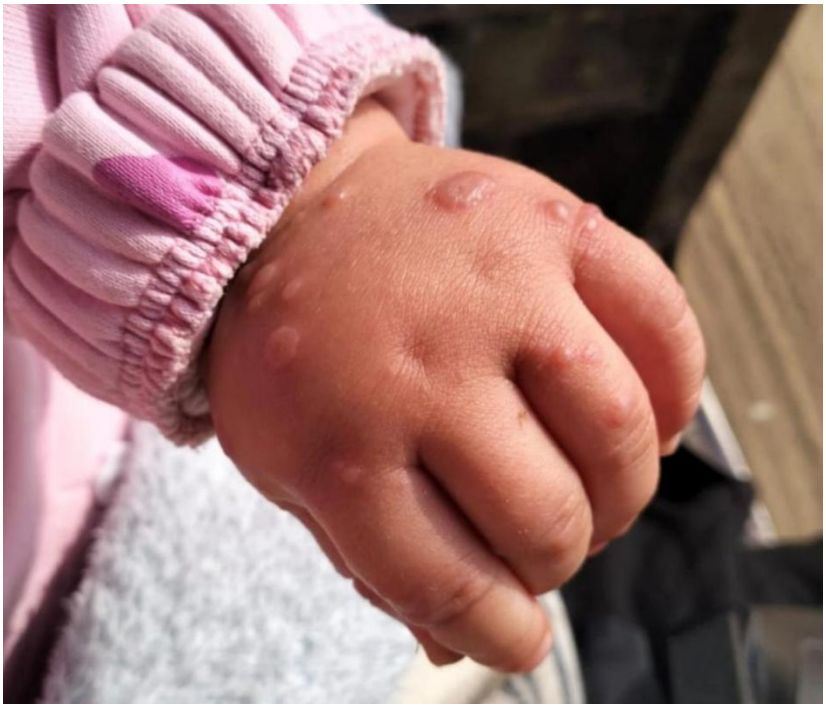

Image 2: highlighting nodular skin lesions over both hands and forearms suggestive of leukemia related skin involvement.

There were no obvious petechiae on initial inspection, but faint bruising was noted over the thighs and arms. Examination of the head and neck revealed no facial swelling. The anterior fontanelle was soft and flat. There was no cervical lymph node enlargement. Oral examination showed pale mucosa with no ulcers or bleeding. Cardiovascular examination revealed normal heart sounds with no murmurs. Peripheral pulses were palpable and capillary refill was slightly delayed. Respiratory examination showed clear breath sounds bilaterally with no added sounds. The child was not in respiratory distress. Abdominal examination revealed a soft but mildly distended abdomen. The liver edge was palpable about two centimeters below the right costal margin and felt firm. The spleen was also palpable. There was no tenderness on palpation. Bowel sounds were present. Examination of the genitalia was normal apart from the diaper area skin changes. Neurological examination showed normal tone and spontaneous movement of all limbs. Reflexes were appropriate for age. There were no focal neurological deficits. Based on the persistent and unusual skin findings, poor response to standard treatment, pallor, fever, and organ enlargement, a systemic cause was suspected. The child was admitted for further evaluation and investigations to determine the underlying diagnosis.

Diagnostic Workup:

Following the initial clinical assessment in the pediatric clinic, the concerning combination of persistent skin lesions, pallor, fever, and organ enlargement prompted urgent admission for further diagnostic workup. The primary concern at this stage was an underlying systemic illness rather than an isolated skin condition. Baseline laboratory investigations were ordered to evaluate for infection, inflammatory disease, and hematologic disorders. Initial complete blood count revealed significant abnormalities. Hemoglobin level was 7.8 grams per deciliter, which was markedly low for age and consistent with anemia. The total white blood cell count was elevated at 38,000 cells per microliter. Differential count showed a predominance of immature appearing cells, with reduced normal lymphocytes and neutrophils. Platelet count was decreased at 62,000 per microliter, indicating thrombocytopenia. These findings raised strong concern for a bone marrow disorder rather than simple infection. Peripheral blood smear was reviewed urgently. It demonstrated numerous large immature cells with high nuclear to cytoplasmic ratio and prominent nuclei. Normal red blood cell morphology was reduced, and platelets were markedly decreased. There was no evidence of hemolysis or fragmented red cells. The presence of circulating immature cells supported the suspicion of acute leukemia. Inflammatory markers were also assessed. C reactive protein was elevated at 48 milligrams per liter. Erythrocyte sedimentation rate was increased. These findings were nonspecific but consistent with systemic inflammation. Blood cultures were drawn to rule out bacterial infection, given the history of fever. Cultures later remained negative. Basic metabolic panel showed normal electrolyte levels. Kidney function tests were within normal range for age, with normal blood urea and creatinine values. Liver function tests revealed mild elevation in liver enzymes and low serum albumin, which was thought to be related to systemic illness and possible liver involvement. Coagulation profile showed mildly prolonged clotting times, although there was no active bleeding at that stage. Given the abnormal blood counts and peripheral smear findings, a bone marrow examination was indicated. Bone marrow aspiration and biopsy were performed under sedation. The bone marrow was hypercellular with extensive replacement of normal marrow elements by immature blast cells. Normal red cell and platelet precursors were markedly reduced. The blast percentage exceeded eighty percent, confirming the diagnosis of acute leukemia. Further testing was performed on the bone marrow sample to classify the leukemia type. Immunophenotyping showed that the blast cells expressed markers consistent with acute leukemia of infancy. These findings helped guide further management and treatment planning. Cytogenetic studies were sent to assess for genetic abnormalities commonly associated with infant leukemia, given their impact on prognosis. In parallel with the bone marrow evaluation, attention was given to the persistent skin lesions that had been a major feature of presentation. Given the firm nodular nature of the lesions and the concern for leukemia cutis, a skin biopsy was performed from one of the nodules on the forearm. The biopsy specimen showed dense infiltration of the dermis by malignant cells with similar appearance to the blasts seen in the bone marrow. The overlying epidermis was largely spared. There were no features of infection or inflammatory skin disease. These findings confirmed cutaneous involvement by leukemia and explained the poor response to topical treatments. The napkin dermatitis was also evaluated carefully. Swabs from the diaper area did not grow bacteria or fungi. The severity and persistence of the dermatitis were thought to be related to immune dysfunction and skin infiltration rather than simple irritant or fungal causes. This further supported the systemic nature of the illness. Imaging studies were obtained to assess the extent of disease involvement. An abdominal ultrasound was performed and confirmed enlargement of both the liver and spleen. There were no focal lesions. Kidneys appeared normal in size and structure. No abdominal lymph node enlargement was noted. Chest radiograph was obtained and showed no lung infiltrates or mediastinal widening. This helped exclude infection or a large mediastinal mass at presentation. Lumbar puncture was deferred initially due to low platelet count and bleeding risk. Once platelet levels were supported, cerebrospinal fluid analysis was planned as part of leukemia staging, although there were no neurological symptoms at presentation. Throughout the diagnostic process, repeat blood counts were monitored closely. Hemoglobin levels continued to trend downward, and platelet counts remained low, consistent with bone marrow failure. The white blood cell count remained elevated. These trends supported the diagnosis and helped monitor disease activity. The overall diagnostic reasoning was based on the combination of clinical features and laboratory findings. The persistent and unusual skin lesions raised early concern. The presence of anemia, thrombocytopenia, and circulating immature cells strongly pointed toward a bone marrow disorder. Bone marrow biopsy provided definitive

confirmation of acute leukemia. Skin biopsy confirmed leukemia cutis and explained the nodular rash. Imaging supported systemic involvement without localized infection. This stepwise diagnostic approach allowed exclusion of common infectious and inflammatory conditions and led to timely diagnosis of infantile acute leukemia with skin involvement. Early recognition through careful clinical assessment and appropriate use of laboratory and tissue diagnosis was crucial in identifying the underlying disease and initiating further management.

Management course

Management focused on stabilization, confirmation of diagnosis, and early initiation of supportive care while arranging definitive treatment at a specialized center. Upon hospital admission, the infant was placed under close monitoring with regular assessment of vital signs, feeding tolerance, urine output, and overall activity level. Given the presence of anemia and thrombocytopenia, care was coordinated with the pediatric team to minimize bleeding risk and prevent infection. Supportive measures were initiated early. Intravenous access was secured, and maintenance fluids were started cautiously to ensure adequate hydration. Blood products were administered as needed. Packed red blood cell transfusion was given to address symptomatic anemia and improve oxygen carrying capacity. Platelet transfusions were provided due to low platelet counts and the risk of bleeding, particularly in the setting of planned diagnostic procedures. Given the concern for underlying malignancy and immune compromise, broad spectrum intravenous antibiotics were initiated empirically after blood cultures were obtained, to cover possible bacterial infection while awaiting results. These were continued until infection was reasonably excluded. Fever was managed with antipyretics, and careful temperature monitoring was maintained. Skin care remained an important part of management. The diaper area was managed with gentle cleansing, frequent diaper changes, and protective barrier creams to reduce discomfort and prevent secondary infection. Topical treatments were continued for symptomatic relief, although it was recognized that definitive improvement would depend on treatment of the underlying disease. The nodular skin lesions were not treated locally, as they were confirmed to be related to systemic leukemia. Once the diagnosis of acute leukemia with skin involvement was established through blood studies, bone marrow examination, and skin biopsy, early involvement of pediatric hematology was arranged. The case was discussed in a multidisciplinary setting to plan further care. Given the infant's age and the need for specialized chemotherapy protocols and supportive services, transfer to a tertiary pediatric oncology center was recommended. Prior to transfer, stabilization was ensured. Blood counts were monitored closely, and transfusions were optimized to reduce procedural risk. Parents were counseled extensively regarding the diagnosis, the need for urgent specialized treatment, and the expected course of management. Emotional support was provided, and time was given for questions and discussion. The patient was subsequently referred and transferred to a specialized pediatric oncology center for definitive leukemia treatment and long term management.

Discussion

This case highlights several important clinical challenges in the diagnosis and management of infantile acute leukemia presenting with prominent skin findings. While acute leukemia is a well recognized pediatric malignancy, its presentation in infancy is often atypical and aggressive, leading to diagnostic delay and increased morbidity [11,13]. The discussion focuses on key clinical lessons related to early recognition, interpretation of skin manifestations, diagnostic reasoning, and the broader implications for clinical practice. Acute leukemia in infants accounts for a small proportion of childhood leukemias but carries distinct biological and clinical characteristics [11]. Compared with older children, infants often present with higher white blood cell counts, more frequent organ involvement, and greater tendency for disease outside the bone marrow [11,13]. These features contribute to rapid disease progression and make early diagnosis particularly important. However, early symptoms are frequently nonspecific, including rash, fever, irritability, and feeding difficulties, which overlap with common pediatric conditions [1].
One of the most instructive aspects of this case is the role of the skin as an early indicator of systemic disease. Leukemia cutis represents infiltration of malignant blood cells into the skin and is reported in approximately five to fifteen percent of leukemia cases overall, with higher rates in infants and in certain leukemia subtypes [3,6]. In infant leukemia, skin involvement may be present at diagnosis or even precede detectable blood abnormalities [2,5]. This makes skin findings a critical but often underappreciated diagnostic clue. Clinically, leukemia cutis can mimic a wide range of benign skin conditions. Nodules, plaques, and diffuse rashes may resemble infections, inflammatory dermatoses, or allergic reactions [3,8]. In this case, the nodular lesions over the hands and forearms were firm, non tender, and persistent, features that should prompt reconsideration of common diagnoses when standard treatments fail. Studies have shown that misdiagnosis or delayed recognition of malignant skin lesions is a frequent contributor to delayed leukemia diagnosis [1]. The coexistence of severe napkin dermatitis further complicated the clinical picture. Diaper rash is extremely common in infancy and is usually benign and responsive to routine care [8]. However, persistent or severe dermatitis that does not respond to appropriate treatment should raise suspicion for underlying immune dysfunction or systemic illness [13]. In leukemia, impaired immune response, altered skin barrier function, and local infiltration can all contribute to unusually severe or refractory skin inflammation [3]. Recognizing when a common condition behaves uncommonly is an important clinical skill highlighted by this case. From a diagnostic perspective, this case reinforces the

importance of basic laboratory testing in infants with unexplained or persistent symptoms. The combination of anemia, thrombocytopenia, and elevated white blood cell count remains a classic red flag for bone marrow disease [10,13]. Even when infection is considered, the presence of multiple blood line abnormalities should prompt urgent hematologic evaluation rather than prolonged empiric treatment [1]. Peripheral blood smear remains a valuable and readily available diagnostic tool. Identification of circulating immature cells provides an early clue to leukemia and can guide timely referral [3]. In many reported cases of leukemia cutis, blood abnormalities may be subtle initially, emphasizing the need for repeat testing when clinical concern persists [2]. This case demonstrates how early laboratory assessment could link skin findings to systemic disease. Skin biopsy played a crucial role in confirming leukemia cutis in this patient. Histologic examination showing dermal infiltration by malignant cells is diagnostic and helps distinguish leukemia cutis from reactive or inflammatory skin conditions [3,9]. Importantly, confirmation of skin involvement has prognostic implications. Several studies associate leukemia cutis with higher disease burden and poorer outcomes, although survival has improved with modern therapy [6]. Bone marrow examination remains the gold standard for leukemia diagnosis [10]. In infants, bone marrow is often extensively infiltrated at presentation, explaining the rapid development of anemia and thrombocytopenia [11]. Early confirmation allows prompt initiation of appropriate therapy and supportive care. This case illustrates a clear diagnostic pathway from clinical suspicion to tissue confirmation, emphasizing the value of coordinated multidisciplinary evaluation. Another clinical issue raised by this case is diagnostic delay. Evidence suggests that delays in diagnosing blood cancers are commonly related to nonspecific symptoms, fragmented care, and initial attribution to benign conditions [1]. In pediatrics, where rashes and infections are common, clinicians may understandably adopt a watchful waiting approach. However, persistent symptoms, lack of response to treatment, or progression should trigger reassessment. This case reinforces that repeated presentations with the same complaint warrant escalation rather than reassurance. From a systems perspective, this case underscores the importance of collaboration between pediatricians, dermatologists, and hematologists. Cutaneous manifestations of hematologic malignancies are well described, yet many clinicians encounter them infrequently [4]. Early dermatologic input and low threshold for biopsy can shorten time to diagnosis and reduce unnecessary treatments. Management considerations also deserve discussion. While this report does not focus on treatment outcomes, it highlights the need for early referral to specialized pediatric oncology centers. Infant leukemia requires complex chemotherapy protocols, intensive supportive care, and expertise not available in all settings [11,13]. Stabilization and timely transfer are therefore essential components of management once the diagnosis is suspected or confirmed. Psychosocial aspects are also relevant. The diagnosis of leukemia in an infant is devastating for families, particularly when the initial presentation appears minor. Clear communication, early counseling, and family support are critical elements of care, although often underreported in clinical literature [13].

From an educational standpoint, this case provides several clinical cues that may help clinicians recognize similar presentations. Persistent nodular skin lesions that are firm and non tender, rashes that fail standard therapy, unexplained pallor, and organ enlargement should prompt consideration of hematologic disease [3,6]. Even in the absence of severe systemic illness, these findings warrant investigation. In terms of epidemiology, studies report that leukemia cutis may be the presenting feature in up to seven percent of cases and may precede systemic diagnosis in a smaller subset [5,6]. Although rare, its recognition has high diagnostic value. Awareness of this entity among clinicians caring for infants can therefore have a meaningful impact on patient outcomes. In conclusion, this case emphasizes the importance of viewing the skin as a window to systemic disease, particularly in infants. It illustrates how common pediatric complaints can occasionally signal serious underlying pathology. Key lessons include maintaining diagnostic vigilance, recognizing atypical features of common conditions, and using basic investigations effectively. Early identification of leukemia cutis and prompt hematologic evaluation are essential to reduce diagnostic delay in infantile leukemia. Reporting such cases contributes to clinician education and reinforces critical clinical reasoning skills needed to manage rare but serious pediatric conditions.

Conclusion

This case emphasizes the importance of careful evaluation of persistent or unusual skin findings in infants. Common conditions such as diaper rash or nodular skin lesions should prompt reassessment when they do not respond to standard treatment or are associated with systemic signs like pallor, fever, or organ enlargement. The skin may be the earliest clue to an underlying hematologic malignancy. Early use of basic blood tests can uncover serious disease before advanced complications develop. Clinicians should maintain a high index of suspicion and avoid prolonged reassurance in the setting of persistent symptoms. Timely referral, multidisciplinary collaboration, and early family counseling are essential. Recognizing leukemia cutis early can shorten diagnostic delay and improve clinical outcomes in infantile leukemia.

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