CASE REPORT

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Langerhans Cell Histiocytosis Mimicking Seborrheic Dermatitis: The Rare Case in Family Medicine

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ABSTRACT A 9-month-old baby girl was admitted to our family health center with the complaint of areas of rash concentrated on her skin. A preliminary diagnosis of seborrheic dermatitis was made for the baby, who underwent periodic health examinations, and blood tests were requested. The patient's blood results and general condition were evaluated, and she was referred for further examination. Bone marrow biopsy results showed positive results consistent with Langerhans cell histiocytosis (LCH) on CD1a and langerin staining using immunohistochemistry. When a patient presents with a persistent seborrheic dermatitis-like rash or chronic diaper rash, the healthcare professional should consider the possibility of LCH. Early recognition and accurate diagnosis of LCH are critical for oncological evaluation and treatment. Therefore, it has been concluded that regular health examinations are essential in diagnosing the disease.

Keywords: Skin diseases; dermatitis; doctor-patient relations; consultation

SEBORRHEIC DERMATITIS

Seborrheic dermatitis (SD) is a chronic-recurrent inflammatory skin disease characterized by acanthosis, hyperkeratosis, parakeratosis, focal spongiosis, and accentuated rete ridges. It is known that this disease mainly affects adults.[1] However, it has also been reported that there is a transient infantile form of SD, which can also occur in infants aged 3-4 months.[2] The incidence in men is much higher compared to women. Its prevalence in adults has been reported to be between 1% and 3%.[3] While the cause of the disease is still unknown, many etiologic factors are thought to play a role in the development of the disease.[1]

LANGERHANS CELL HISTIOCYTOSIS

Langerhans cell histiocytosis (LCH) is a rare myeloid dendritic cell disease of unknown etiology. It is usually located in the bones (52%), but the lungs (40%) and skin (7%) may also be affected. While systemic symptoms and organ dysfunction occur in children under two years of age, it usually causes localized bone lesions in older children. In case of orbital involvement, periorbital edema and ptosis may be observed. Diagnosis is made by identifying typical histopathological findings and CD1a-positive cells by biopsy. Bone lesions can be seen as lytic lesions with or without clear borders on plain X-rays.[6]

CASE REPORT

A 9-month-old girl was admitted to the family health center with a complaint of yellow-brown crusting with areas of rash on her skin that did not last for about two months, especially in the diaper area, and dandruff on her scalp (Figure 1).

The baby was born by cesarean section weighing 3,250 g, and no special conditions were observed in the postnatal period. There was no consanguinity between the parents. Blood tests of the baby diagnosed with SD revealed HGB: 7.9 g/dL, HCT: 21%, leuko-

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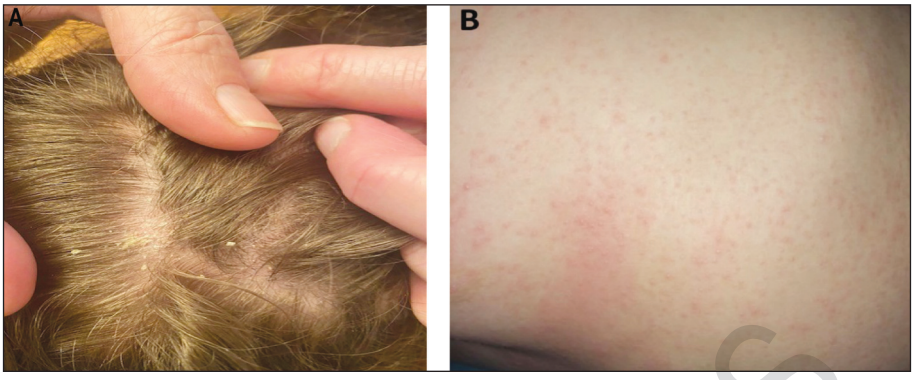

FIGURE 1: It is shown the dandruff on her scalp **(A)**, rash on the abdomen of a 9-month-old baby girl **(B)**.

cyte: 15,000/mm^3, platelet: 480,000/mm^3, and normal liver and kidney values. The ophthalmologist stated that the tear ducts were blocked and massage was required, but during the periodic health examination (PHE), it was understood that this problem continued. On examination, mild exophthalmos was detected in the right eye. The bone marrow biopsy performed on the baby, who was referred for further examination, revealed S-100 and CD1A positivity and diagnosed LCH.

DISCUSSION

PHE includes health checks for early diagnosis, physical examination, and health counseling. Research has stated that these checks are essential in the early detection of serious health problems.[7] Organizations such as United States Preventive Services Task Force, Canadian Task Force on Preventive Health Care and American Academy of Family Physicians, which conduct worldwide studies on PHE, publish guidelines in this field.[8,9] PHE, which is of critical importance in family medicine, is effective in the early diagnosis of fatty liver, for example, in a 9-month-old baby, and in multi-system diseases, the aim is to prolong life and reduce treatment complications. An immediate rescue protocol is required for high-risk patients, and alternative medications should be considered and administered for those who do not respond to treatment.[10] LCH, a rare disease usually seen in children between 0 and 3, can affect various systems.[11,12] LCH may have rashes resembling SD, and as reported by Song et al., LCH can be diagnosed in a 12-month-old baby.[13,14]

Likewise, our 9-month-old patient was admitted to the family health center complaining of rash areas on her skin that did not last for about two months, especially in the diaper area, and dandruff on her scalp. Timely referral by the family physician is of great importance here. Otherwise, it is seen that wrong diagnosis and, therefore, wrong treatment are inevitable. Therefore, family physicians play a significant role in making the correct diagnosis by guiding possible cases, as in this case. Also, in this case, the initial evaluation, basic laboratory tests for histopathological diagnosis, and biopsy were performed for timely diagnosis of LCH.[14]

This case highlights the importance of periodic medical examinations in diagnosing, treating, and managing LCH, a rare situation in a young child. Thanks to the PHE, it was concluded that the clinician should consider the possibility of LCH when a patient presents with a SD-like rash to avoid delay in diagnosis and treatment.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: *Ebru Uğraş Tiryaki, Erhan Şimşek;* ***Design:*** *Ebru Uğraş Tiryaki;* ***Control/Supervision:*** *Ebru Uğraş Tiryaki, Erhan Şimşek;* ***Data Collection and/or Processing:*** *Ebru Uğraş Tiryaki, Erhan Şimşek;* ***Analysis and/or Interpretation:*** *Ebru Uğraş Tiryaki;* ***Literature Review:*** *Ebru Uğraş Tiryaki, Erhan Şimşek;* ***Writing the Article:*** *Ebru Uğraş Tiryaki, Erhan Şimşek;* ***Critical Review:*** *Ebru Uğraş Tiryaki, Erhan Şimşek;* ***References and Fundings:*** *Ebru Uğraş Tiryaki, Erhan Şimşek;* ***Materials:*** *Ebru Uğraş Tiryaki.*

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