Arch Iranian Med 2007; 10 (4): 532 – 434

Case Report

An Unusual Case of Lipedematous Alopecia

Hamideh Moravvej-Farshi MD•*, Nahid Mohtasham MD*

Lipedematous alopecia and lipedematous scalp are two similar unusual conditions mostly affecting healthy black women. Here, we report one such case with emphasis on clinical and histologic findings, and review the literature on the subject. The presence of ecstatic lymphatic vessels with hair loss was particularly emphasized. Our findings suggest a lessened role of racial factors but confirm the sex implications and significance of lymphangiectatic vessels in development of alopecia in this condition.

Archives of Iranian Medicine, Volume 10, Number 4, 2007: 532 – 534.

Keywords: Lipedematous alopecia • lipedematous scalp

Introduction

Lipedematous alopecia is a rare condition of unknown etiology. It is characterized by a thick boggy scalp with varying degree of hair loss. This syndrome has been recognized mainly in black women.[1 – 3] If it is associated with hair growth abnormalities the term will be called lipedematous alopecia. If no hair abnormalities are present, the term will be called lipedematous scalp.[4, 5] There are no associated medical or physiologic conditions. The fundamental pathologic finding consists of an approximate doubling in scalp thickness resulting from expansion of subcutaneous fat layer in the absence of adipose tissue hypertrophy or hyperplasia.[1]

Case Report

A 45-year-old Iranian female presented with a five-year history of patchy hair loss on the vertex with gradually asymptomatic thickening of the face and the scalp. Physical examination revealed soft, cotton like, diffuse bogginess and swelling of the scalp and face and a patchy hair loss on the parietal area (Figure 1). She had been treated as alopecia areata with no response during the last five years.

The scalp could easily be pressed down to the bone, but returned immediately to initial shape when the pressure was relieved. No signs of scalp inflammation or scarring were found. She also had freckles and café-au-lait spots on her trunk (Figure 2). She reported no history of trauma and no accompanying systemic symptoms. There was no family history of a similar condition and the patient had no significant medical history (she was only using treatment for the patchy alopecia). The thickness of parietal region measured by head

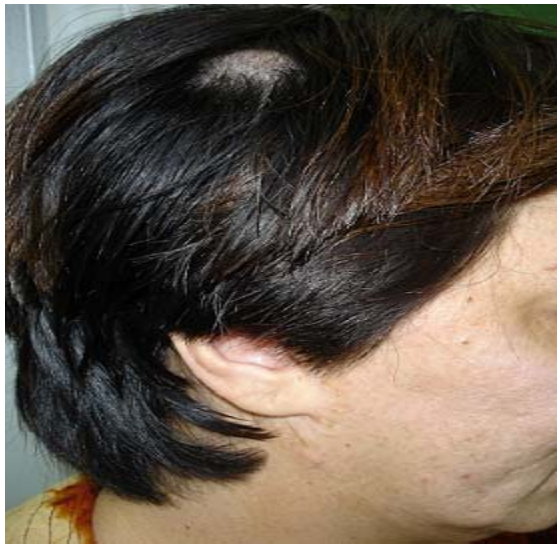

Figure 1. Diffuse bogginess and swelling of the scalp and face and a patchy hair loss on the parietal area.

Authors' affiliation: *Skin Research Center, Shaheed Beheshti University of Medical Sciences, Tehran, Iran.
•Corresponding author and reprints: Hamideh Moravvej-Farshi MD, Skin Research Center, Shohada Hospital, Tehran 1989934148, Iran.
Telefax: +98-212-274-4392-5,
E-mail: hamideh_moravvej@yahoo.com.
Accepted for publication: 20 June 2007

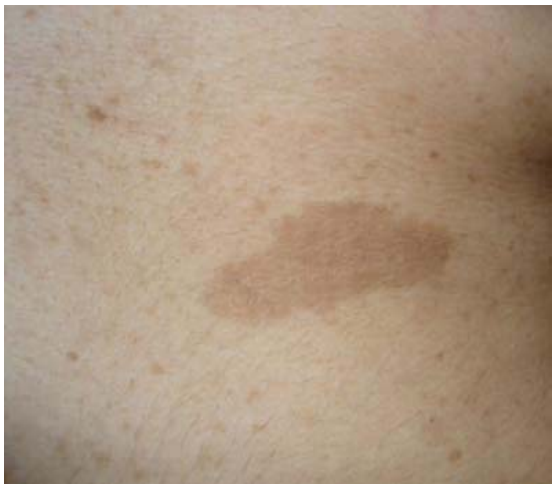

Figure 2. The freckles and café-au-lait spots on the trunk.

ultrasound was 10.7 mm, which was in contrast with that of normal parietal scalp (0.5 mm).

The histologic study showed unremarkable findings in the epidermis. The dermal lymphatic vessels were significantly dilated, and increased thickness of the subcutaneous adipose tissue and decreased number of hair follicles were reported (Figure 3). The subcutaneous adipose tissue showed mild edema and dilated lymphatic vessels (Figure 4). No mucin deposits were identified. After taking skin biopsy, the edema decreased and a noticeable finding was regrowth of hair after one week (Figure 5).

Discussion

Since 1935, only 14 cases of lipedematous alopecia have been reported in the literature. In all of the cases but one,[6] scalp thickness was reported.

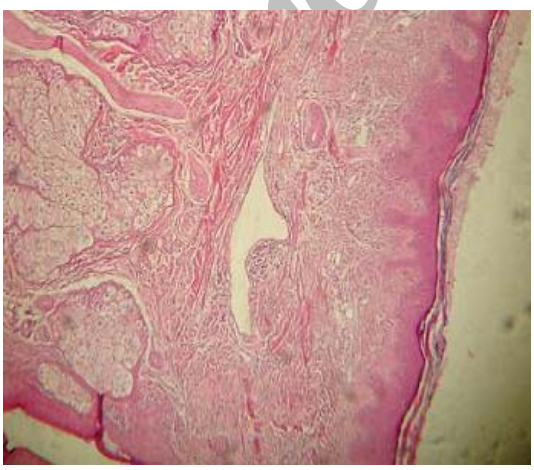

Figure 3. Low-power magnification showing no significant abnormalities in the epidermis, decreased number of hair follicles, and dilated lymphatic vessels in the dermis (H&E ×10).

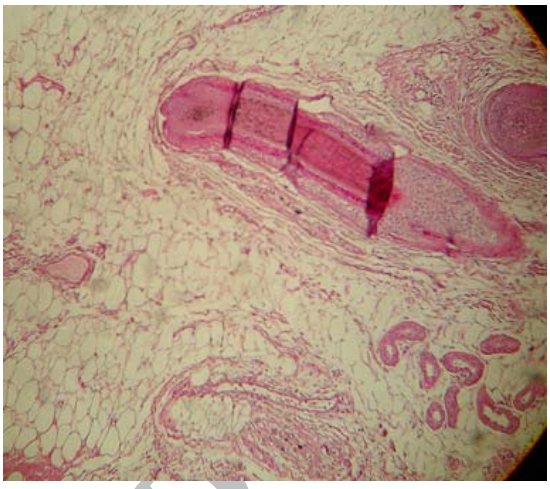

Figure 4. Increased thickness of the subcutaneous adipose tissue with dilated lymphatic vessels (H&E ×10).

Seven of the cases had pruritus, four cases had pain, one case had paresthesias, and four cases were asymptomatic. Six of them had shortened hair, seven of them had hair loss, and four of them had normal hairs. In five cases thickening of scalp was diffuse but in other cases the thickening was localized.[4] All of the patients were females except one case that was reported from Japan.[7] Seven cases were black, five were white, and two were Asiatic.[4]

These rare entities are characterized by boggy thickening of the scalp, predominantly located at the vertex and occiput. The swelling can progress slowly during a period of months or years to the rest of the scalp.[4, 5] The lesion is palpable rather than visible and it is easily pressed down to the bone but returns to normal shape immediately. No

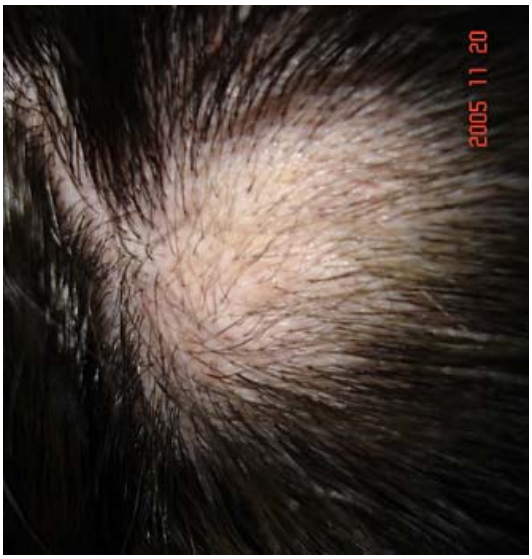

Figure 5. Regrowth of hair after taking biopsy.

hair abnormalities or inability to grow hair accompanied by different degrees of alopecia may be present over the affected scalp. Additional symptoms such as irritation, pruritus, paresthesia, and pain may be associated.[4]

The increase in the number of cases in white and Asiatic women[7, 8] would lessen the role of racial factor in the pathogenesis of the disease, but not that of sex. Similar to other diseases that predominantly affect women and girls, hormonal factors can be involved. No other significant associated systemic condition has been described.[4] But four cases were associated with diabetes mellitus,[9] skin and joint hyperelasticity,[10] renal failure,[3] and Sjögren syndrome.[4]

In summary, we report a case of lipedematous alopecia with a patchy alopecia located in the parietal region and a diffuse thick boggy and spongy skin of the face and scalp. She was Iranian, Asiatic, and also had freckles and café-au-lait spots on her trunk. A noticeable point of this case was regrowth of hair one week after taking skin biopsy.

References

1 Tiscornia JE, Molezzi A, Hernandez MI, Kien MC, Chouela EN. Lipedematous alopecia in a white woman. *Arch Dermatol*. 2002; **138:** 1517 – 1518.

2 Fair KP, Knoell KA, Patterson JW, Rudd RJ, Greer KE. Lipedematous alopecia: a clinicopathologic, histologic and ultrastructural study. *J Cutan Pathol*. 2000; **27:** 49 – 53.

3 Bridges AG, von Kuster LC, Estes SA. Lipedematous alopecia. *Cutis*. 2000; **65:** 199 – 202.

4 Martin JM, Monteagudo C, Montesinos E, Guijarro J, Llombart B, Jorda E. Lipedematous scalp and lipedematous alopecia: a clinical and histologic analysis of three cases. *J Am Dermatol*. 2005; **52:** 152 – 156.

5 Scheuffler O, Kania NM, Heinrichs CM, Exner K. Hyperplasia of the subcutaneous adipose tissue is the primary histopathologic abnormality in lipedematous scalp. *Am J Dermatopathol*. 2003; **25:** 248 – 252.

6 Cornbleet T. Cutis vertices gyrate? Lipoma? *Arch Dermatol Syph*. 1935; **32:** 688.

7 Ikegima A, Yamashita M, Ikeda S, Ogawa H. A case of lipedematous alopecia occurring in a male patient. *Dermatology*. 2000; **201:** 168 – 170.

8 Lee JH, Sung YH, Yoon JS, Park JK. Lipedematous scalp. *Arch Dermatol*. 1994; **130:** 802 – 803.

9 Coskey RJ, Fosnaugh RP, Fine G. Lipedematous alopecia. *Arch Dermatol*. 1961; **84:** 619 – 622.

10 Curtis JW, Heising RA. Lipedematous alopecia associated with skin hyperelasticity. *Arch Dermatol*. 1964; **89:** 819 – 820.