

A Case of Pigmented Fibroepithelioma of Pinkus with Dermoscopic Features Resembling Superficial Basal Cell Carcinoma

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Abstract

Observation: Fibroepithelioma of Pinkus (FeP) is a rare variant of basal cell carcinoma (BCC) with clinical findings that can be overlooked. Many dermoscopic features have been described for different BCC subtypes including both superficial BCC (sBCC) and FeP. The frequency of dermoscopic findings in FeP varies among different studies. Many of these features may overlap with other BCC subtypes. Here, we report a case of clinically pigmented and histopathologically confirmed FeP with dermoscopic features reminiscent of sBCC. Future studies will ascertain the data on the dermoscopy of FeP and aid in the establishment of the dermoscopic criteria for its early diagnosis.

Introduction

Fibroepithelioma of Pinkus (FeP) is an uncommon indolent variant of BCC which is rarely pigmented [1,2,3,4,5]. Dermoscopy has been reported to be a useful tool in discriminating certain BCC subtypes [1,6,7]. Several dermoscopic features have been described for FeP [1,2,6] and other BCC subtypes [7]. The frequency of dermoscopic features seen in FeP differs between studies. We report a case of clinically pigmented FeP whose dermoscopic findings resemble sBCC.

Case Report

We report a 42 years old man who had a 1x2 cm in diameter, pink-brown plaque with peripheral pigmentation on the left arm enlarging slowly over two years (Figure 1a). The dermoscopic examina-

tion revealed maple leaf-like areas and concentric structures at the periphery of the lesion, short fine superficial telangiectasias and central shiny white-red scales (Figure 1b). It was learned that a biopsy was taken from the lesion two months previously with nonspecific pathology. As the dermoscopic findings resembled superficial BCC a second biopsy was taken from the pigmented edge (Figure 2a).

On histopathological examination parakeratotic stratum corneum, thickening of granular layer, slight spongiosis in epidermis and loosely arranged, thin anastomosing cords of basaloid cells in dermis were observed. Additionally, capillary proliferation, focal extravasation of erythrocytes and loose stroma between the anastomosing cords that extend into the dermis were seen (Figure 2 b,c). According to pathological findings FEP diagnosis was made. The lesion was totally excised (Figure

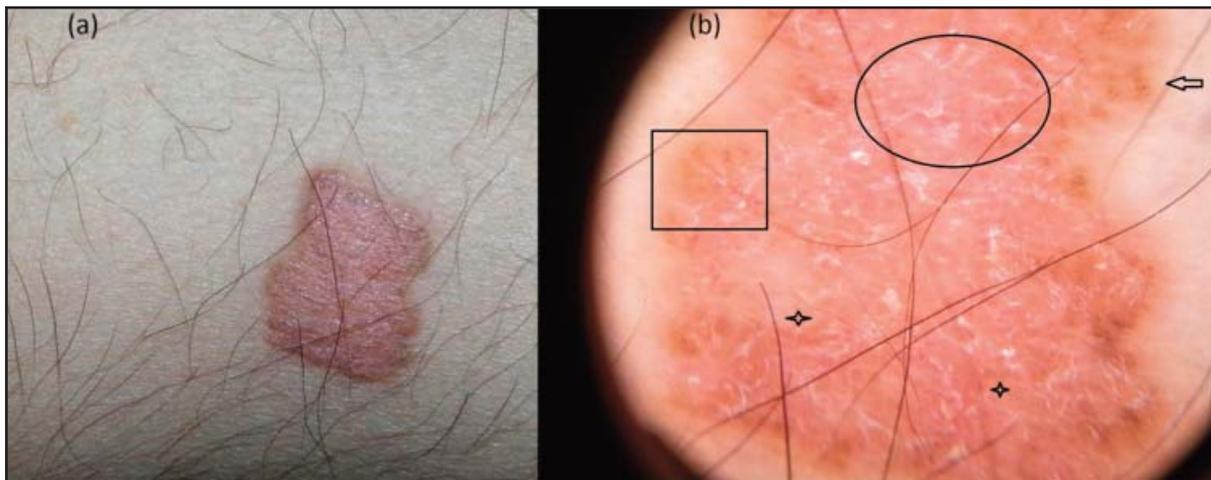


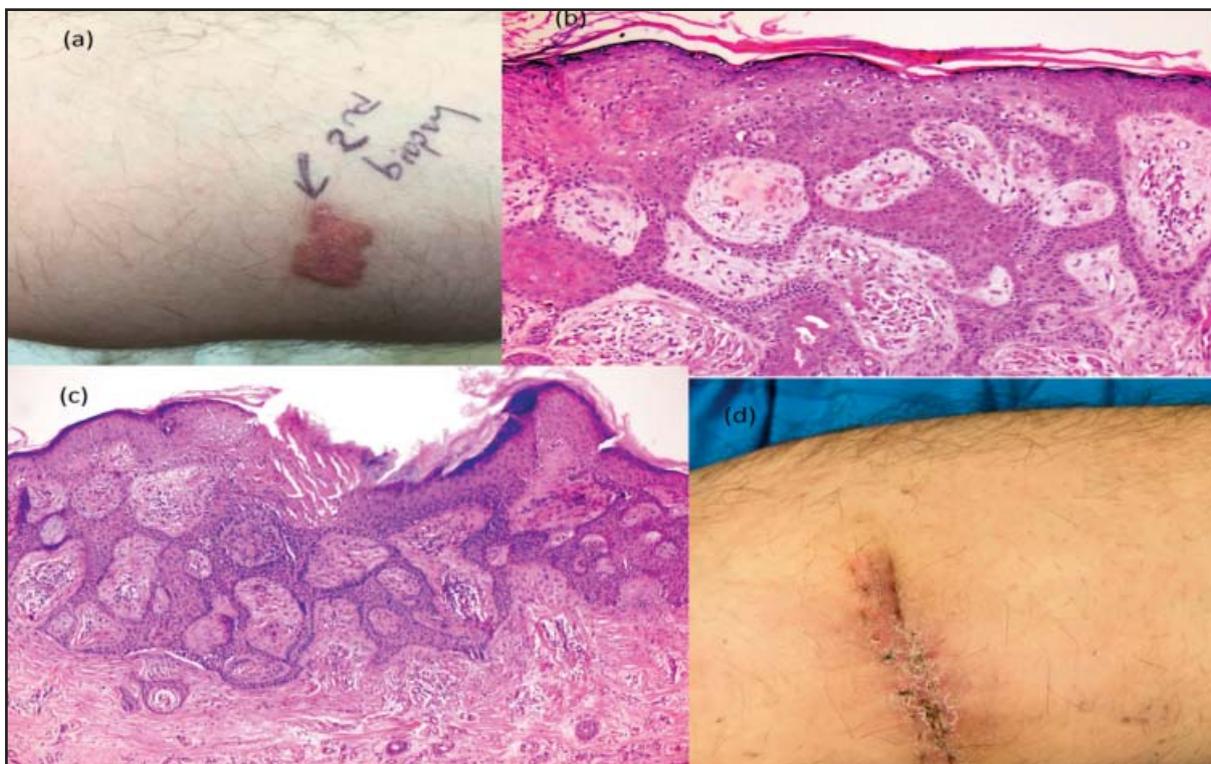
Figure 1a and b. **a.** A flat, pink-brown plaque with distinct borders and peripheral pigmentation **b.** Dermoscopic examination shows maple leaf-like areas and concentric structures at the periphery of the lesion, short fine superficial telangiectasias and central shiny white to red scales

2d) and no recurrence was noted during the 6 months of follow-up.

Discussion

PFFeP is an uncommon variant of BCC. Dermoscopy has been reported to be useful in the early detection and differentiation of BCC subtypes [1,2,7].

The main dermoscopic features of FeP are fine arborizing vessels, whitish streaks (WSs) (also described as white intersecting septal lines), shiny white-red structureless area (SWRSA) (also described as amorphous whitish-pinkish area), structureless gray-brown pigmentation, gray-blue dots, peripherally located dotted vessels and ulceration [1,2,4,5,6,7,8]. Addi-



Figures 2a, b, c, and d. **a.** Second biopsy was taken from the pigmented edge **b.** Loosely arranged, thin anastomosing cords of basaloid cells extending into the dermis, parakeratotic stratum corneum, thickening of granular layer and slight spongiosis in epidermis are seen. Additionally, capillary proliferation, focal extravasation of erythrocytes and loose stroma between the anastomosing cords are observed **c.** Loosely arranged, thin anastomosing cords of basaloid cells and minimal ulceration on epidermis **d.** Showing the suture line after total excision

tional findings include blue-gray ovoid nests, multiple blue-gray globules, concentric structures, maple leaf-like areas, spoke-wheel areas, short fine superficial telangiectasias, multiple small erosions, few comedo-like openings and milia-like cysts [1,4,5,7,8]. The frequency of these dermoscopic features seen in FeP differs among studies.

Our dermoscopic findings were not compatible with the literature. We observed maple leaf-like areas and concentric structures at the periphery of the lesion, short fine superficial telangiectasias and shiny white to red scales in the center (Figure 2).

The most prominent dermoscopic features of sBCC are short fine superficial telangiectasia, small erosions, SWRSA and maple leaf-like areas. Concentric structures are reported to be common in pigmented sBCC [7].

Superficial scale has been reported as one of the most common dermoscopic feature of basosquamous carcinoma [9]. The central distribution of scales was associated with well differentiation of SCC [10]. To our knowledge, central distribution of white scales on dermoscopy of FeP has not been mentioned to date. The histopathological correlation and the clinical significance of this finding require investigation.

The pigmentation pattern of BCC provides information about the thickness of tumor (superficial versus nodular) and its subtype [7,8]. Pigmented FeP is not common and most common pigmentation patterns on dermoscopy are structureless gray-brown area, blue-gray dots, blue-gray ovoid nests and multiple blue-gray globules [1,2,4,5,6,7,8]. Also in recent two studies concentric structures, maple leaf-like areas and spoke-wheel areas are described. However, authors could not find blue-gray dots in any of FeP cases [7,8] (Table 1). We observed maple leaf-like areas and concentric structures on dermoscopy. Of note, maple leaf-like areas and concentric structures are also well-known pigmentation characteristics of sBCC [7].

WSs on dermoscopy of FeP are defined as white septal lines within the tumor 1 and can be detected only by polarized dermoscopy [2]. Zamberk et al. proposed WSs to be the most significant dermoscopic sign of FeP [6]. In a review on the dermoscopy of FeP, WSs could not be observed since the authors used non-polarized light source [2]. Intriguingly, although Lallas et al. used either polarized or nonpolarized light source, they did not observe these WSs in any of 8 FeP cases [7]. We used polarized light source with non-contact method and did not observe WSs. As the WSs have been

Table 1. The Pigmentation Patterns Defined for Fep on Dermoscopy in The Literature

Reference Number	Number of total FeP	Number of pigmented FeP	Pigmentation pattern*	Frequency of each pattern in total FeP
7	1	1	Gray-brown structureless pigmentation	100%
3	10	4	Several small brown dots	100%
	1	1	Gray-brown area of pigmentation	Not mentioned
8	3	1	Blue-gray dots	100%
			Blue-gray dots	100%
9			Blue-gray ovoid nests	33,3%
			Gray pigmented area	
10	8	3	Dark-brown dots	Not mentioned
	3	1	Patchy hyperpigmented areas	33,3 %
4	8	Not mentioned	Gray-brown coloration	62.5 %
			Multiple blue-gray globules	37.5 %
11			Blue-gray ovoid nests	37.5 %
			Concentric structures	25.0 %
			Maple leaf-like areas	25.0 %
			Spoke-wheel areas	
12	10	Not mentione	Multiple blue-gray globules	60 %
			Blue-gray ovoid nests	40 %
			Concentric structures 3	30 %
			Maple leaf-like areas 2	20 %
			Spoke-wheel areas 2	20%

* as designated in the cited article

associated with the marked fibrosis observed in histopathological examination [1], one may question whether the lack of prominent fibrosis in our case is related to our failure to see WSs on dermoscopy.

SWRSA have been reported to be a characteristic finding of sBCC [7]. An equivalent feature has also been defined in FeP and described as amorphous whitish area or white-pinkish hue [2,6]. The frequency of SWRSA was reported as 12.5% in FeP [7]. Zalaudek et al. did not observe SWRSA whereas they defined the color of all 10 FeP lesions as red to light brown-yellow. Strikingly, 9 of 10 FeP lesions were diagnosed correctly with their defined criteria as fine arborizing vessels with or without dotted vessels, and white streaks [1] suggesting that the presence of SWRSA is not an essential criteria for the diagnosis of FeP. We did not observe SWRSA on our dermoscopic examination.

Further studies are needed on dermoscopy of FeP for the development of dermoscopic criteria which is helpful for its early diagnosis.

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