Dermatology Practical & Conceptual

Clinical and Dermoscopic Characterization of Mixed-Type Basal Cell Carcinoma

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ABSTRACT

Introduction: Basal cell carcinoma (BCC) is a malignant skin tumor that originates from epidermal basal cells or the outer root sheath of hair follicles. Identifying histopathological subtypes is crucial to guiding treatment and patient follow-up. While dermoscopic features associated with histopathological subtypes have been studied, the changes in dermoscopic findings in mixed-type BCC remain unclear.

Objectives: This study aimed to analyze the demographic characteristics of patients diagnosed with single and mixed-type BCC and to investigate the correlation between clinical and dermoscopic findings and histopathological subtypes.

Results: A total of 186 BCC lesions from 157 patients were analyzed. The mean patient age was 68.8±12.7 years (range: 30–94). The most common lesion location was the head and neck region (74.7%). The distribution of histopathological subtypes was as follows: nodular (42.5%), mixed-type (37.6%), superficial (12.4%), basosquamous (3.2%), infiltrative (2.7%), micronodular (1.1%), and fibroepithelial (0.5%). The most frequent mixed-type BCC combinations were nodular-infiltrative (32.9%), nodular-superficial (31.4%), and nodular-micronodular (12.9%).

Short fine telangiectasia, yellow-white structureless areas, scales, and rosette structures were more frequent in mixed-type BCC. Corkscrew vessel patterns were more common in single-type lesions. The presence of a superficial component in mixed-type BCC was associated with wheel-like structures,

while infiltrative components correlated with dotted and glomerular vessel patterns, and basosquamous components were linked to arborizing vessel patterns. Additionally, arborizing vessel patterns (P=0.019) and dotted vessel patterns (P=0.025) were associated with high-risk subtypes in mixed-type BCC.

Conclusion: Our study suggests that dermoscopic findings may serve as a guide to recognizing mixed-type BCC lesions, distinguishing between subtype components, and assisting in treatment decision-making based on these observations.

Introduction

Basal cell carcinoma (BCC) is a skin cancer originating from epidermal cells and is the most common malignant tumor in humans. Chronic sun exposure is considered the most significant carcinogenic factor. It typically arises in sun-exposed areas of fair-skinned individuals, with the head and neck region being the most frequently affected site [1, 2].

Although BCC is traditionally classified into four main clinical subtypes, including nodular, superficial, morpheaform, and fibroepithelialoma of Pinkus, numerous histopathological subtypes have been described.[3] Identifying these histopathological subtypes is also important to assessing the risk of recurrence. Based on recurrence risk, basal cell carcinoma can be classified into low-risk and high-risk histopathological subtypes [4]. Low-risk subtypes include nodular, superficial, pigmented, infundibulocystic, and fibroepithelial types, whereas high-risk subtypes comprise basosquamous, morpheaform, micronodular, infiltrative, and sarcomatoid variants [4, 5]. Additionally, rarer histopathological subtypes such as adenoid and keratotic BCC have been identified [3, 6].

Despite the classification of BCC into distinct clinical subtypes, histopathological variants frequently overlap, particularly with the nodular subtype. The presence of multiple histopathological components within a single lesion is not uncommon, with mixed-type BCCs accounting for approximately 11–39% of primary BCCs. A study by Kaur et al [7]. suggested that mixed-type BCCs may evolve into more aggressive forms over time, influenced by the host immune response and stromal alterations. Another study by Bartos et al [8]., examining the clinical and histopathological characteristics of BCC, found that the proportion of aggressive growth patterns was significantly higher in mixed-type BCCs (64.7%) compared to single histopathological subtypes (13%).

Dermoscopy is a valuable tool in the diagnosis of BCC, relying on characteristic vascular structures, pigmented features, ulceration, and the absence of specific melanocytic structures.[9] Although dermoscopic features associated with different histopathological subtypes of BCC have been well described, the variations in these features within mixed-type BCC combinations remain unclear.

Objectives

This study aimed to analyze the demographic characteristics of patients diagnosed with single and mixed-type BCC and to investigate the correlation between clinical and dermoscopic findings and histopathological subtypes.

Methods

Patients aged 18 years and older who were diagnosed with BCC between January 2014 and August 2024 and had records in the digital dermoscopic imaging system were included in the study. Data from these patients were retrospectively analyzed, and patients newly diagnosed with BCC during the study period were also included.

Histopathology

Histopathological evaluation of BCC lesions was performed using excisional biopsy specimens whenever available. In cases where the initial diagnosis was made by punch biopsy, the subsequent excisional specimen was re-evaluated. Histopathological evaluation of BCC lesions was performed by three researchers, including two dermatopathologists. The classification of BCC subtypes and their combinations was based on the 2018 World Health Organization (WHO) classification.[10] As part of the study, recorded dermoscopic images of lesions from patients followed up with a BCC diagnosis in our outpatient clinic were re-evaluated. Histopathological subtypes known to exhibit aggressive behavior, such as morpheaform, infiltrative, micronodular, and basosquamous types, were classified as high risk. The presence of any of these aggressive components in mixed-type lesions also led to their classification as high risk.

Dermoscopy

Dermoscopic examination was performed using a polarized contact dermatoscope integrated into the FotoFinder system. All images were digitally stored in the institutional FotoFinder archive and retrospectively reviewed. During image acquisition, minimal pressure was applied to avoid obscuring vascular structures.

Dermoscopy findings were analyzed according to established criteria and grouped into vascular structures,

pigmented structures, nonpigmented structures, and unclassified structures:

- **Vascular structures:** arborizing vessels (large-diameter branching vessels), short fine telangiectasias (thin, delicate vessels with limited branching), linear irregular vessels, corkscrew vessels, polymorphous vessels, dotted vessels, forked vessels, glomerular vessels, and comma vessels.
- **Pigmented structures:** blue-gray ovoid nests, multiple blue-gray globules, focused dots, leaf-like areas, spoke-wheel structures, and concentric structures.
- **Nonpigmented structures:** shiny white crystalline structures, pink-white structureless areas, yellow-white structureless areas, ulceration, and multiple small erosions.
- **Unclassified structures:** scaling, rosette structures, rainbow pattern, milia-like cysts, and maple-leaf-like globules.

Two dermatologists independently reviewed the dermoscopic images, and discrepancies were resolved by consensus.

Recurrent BCC cases, lesions with ulceration affecting more than 50% of the surface, patients with low-quality dermoscopic images, and cases treated with any modality other than total excision were excluded from the study. The study protocol was approved by the University Ethics Committee (SBA 24/290, 2024/07-45).

Statistical Analyses

Statistical analyses were performed using IBM SPSS 27.0 software. Descriptive analyses were presented as frequency and percentage for categorical variables and as mean ± standard deviation (SD) for continuous variables. The normality of continuous variables was assessed using visual methods (histograms and probability plots) and analytical methods (Kolmogorov-Smirnov/Shapiro-Wilk tests). Independent group comparisons for categorical variables were conducted using the chi-square or Fisher's exact test. For parametric continuous variables, the Student's t-test was used for comparisons between two independent groups. A Type I error level of 5% was considered statistically significant.

Results

Initially, 450 patients with a total of 503 dermoscopic images of BCC were identified. After applying the exclusion criteria (recurrent BCC, extensive ulceration, low-quality images, and non-excisional treatment), 157 patients with 186 dermoscopic images were included in the final analysis. The mean age of the patients was 68.8 ± 12.7 years. (range, 30-94 years) Among the patients, 92 (58.59%) were male and 65 (41.40%) were female.

A total of 186 BCC lesions from these 157 patients were evaluated both dermoscopically and histopathologically. While 132 patients had a single lesion, 21 patients had two synchronous BCCs, and 4 patients had three synchronous lesions. The most common anatomical location of BCCs was the head and neck region (74.7%), followed by the trunk (17.7%), upper extremities (6.5%), and lower extremities (1.1%). The involvement of the head and neck region was found to be significantly more frequent compared to other anatomical sites ($p < 0.001$).

Among the 186 lesions evaluated in our study, 116 (62.3%) of them consisted of a single histopathological subtype, while 70 lesions (37.6%) were composed of mixed histopathological subtypes. A total of 141 lesions were initially diagnosed as having a single subtype based on punch biopsy; however, histopathological assessment after total excision revealed that 25 of these were actually of mixed subtype, and 11 were reclassified as high-risk BCC. Among the 116 lesions with a single subtype, 79 (42.5%) were nodular, 23 (12.4%) superficial, 6 (3.2%) basosquamous, 5 (2.7%) infiltrative, 2 (1.1%) micronodular, and 1 (0.5%) was classified as fibroepithelial (Figure 1).

Among the 70 lesions with mixed histopathological subtypes, the most common combinations were nodular-infiltrative (32.9%), nodular-superficial (31.4%) and nodular-micronodular (12.9%) (Figure 2, Figure 3 and Table 1).

The mean age was 69.5 ± 12.1 (range: 30 – 92) years in patients with single-type BCC and 68.6 ± 12.9 (range: 34-89) years in those with mixed-type BCC, with no statistically significant difference between the groups ($p = 0.630$). There were also no statistically significant differences between single-type and mixed-type BCC regarding gender distribution or anatomical location ($p=0.843$, $p=0.327$, respectively). However, 67.1% of mixed-type BCCs were classified as high-risk, whereas this proportion was only 11.2% in single-type lesions ($p<0.001$) (Table 2).

Dermoscopic Findings

The most commonly observed vascular structure on dermoscopy was the arborizing vessel pattern (41.9%), the most frequently seen pigmented structure was the blue-gray ovoid nest (41.4%), the most common nonpigmented structure was the crystalloid-like structure (53.2%), and the most commonly unclassified structure was scale (33.9%). Single-type and mixed-type lesions were compared based on dermoscopic findings. In mixed-type basal cell carcinomas, the presence of short fine telangiectasias was found to be significantly higher compared to single-type lesions (44.3% vs. 19%; $P<0.001$). Conversely, the corkscrew vessel pattern was more commonly observed in single-type lesions than in mixed-type lesions (28.4% vs. 15.7%; $P=0.048$). The presence of yellow-white structureless areas was higher in mixed-type BCCs compared to single-type BCCs (44.3% vs. 27.6%; $P=0.020$). Additionally, scale and rosette structures

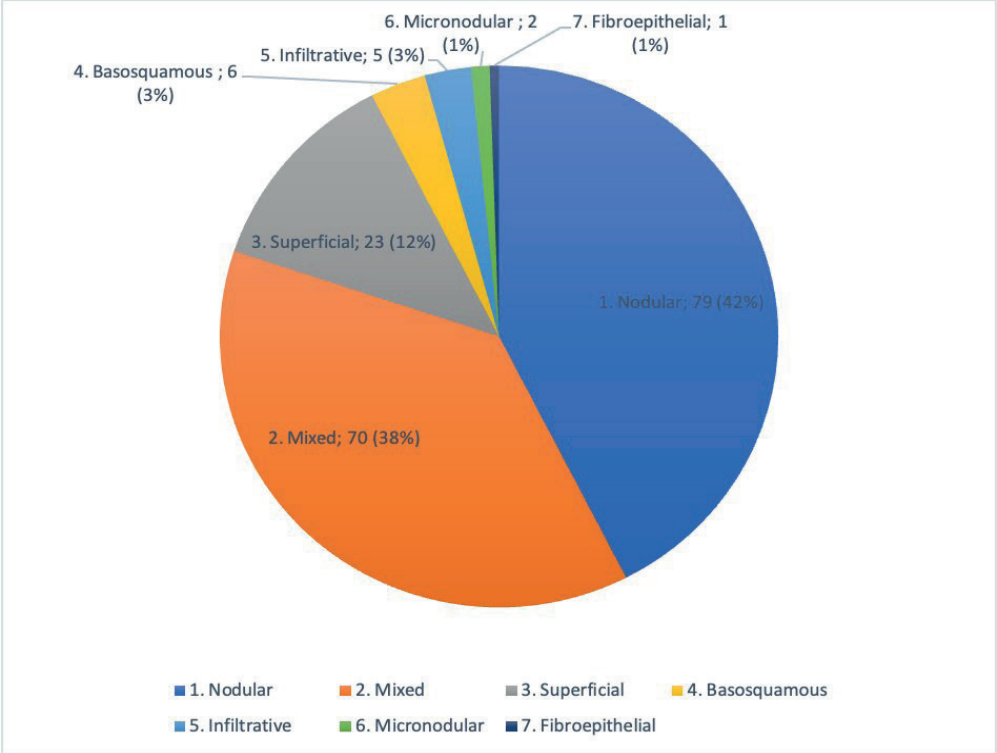

Figure 1. Histopathological subtypes of BCC (N=186).

were more prevalent in mixed-type BCCs than in single-type BCCs (*P*=0.020 and *P*=0.003, respectively) (Figure 4, Table 3).

The presence of the superficial histopathological subtype within the components of mixed-type BCCs was associated with a decreased frequency of arborizing and dotted vessels. However, in mixed-type BCCs containing the superficial subtype, spoke-wheel–like structures were observed more frequently than in lesions with any other histopathological components (*P*=0.001, for all comparisons). The presence of the infiltrative subtype within mixed-type BCCs was significantly associated with a higher frequency of dotted and glomerular vessels compared to other histopathological components. Conversely, in cases with an infiltrative component, blue-gray ovoid nests and focused dots were observed less frequently than in lesions containing other histopathological subtypes (*P*=0.025, for all comparisons). The presence of the basosquamous component within mixed-type BCCs was associated with an increased number of arborizing vessels on dermoscopy (*P*=0.042) (Figure 5, Table 4).

The presence of short fine telangiectasias, scales, and rosettes was found to be significantly higher in mixed-type nodular BCCs than in single-type nodular BCCs (*P*<0.01, *P*<0.01, and *P*<0.01, respectively). In mixed-type superficial BCCs, ulceration was significantly more prevalent than in single-type superficial BCCs (*P*<0.01). Due to insufficient sample size, other subtypes, whether found as single or mixed forms, were not statistically compared.

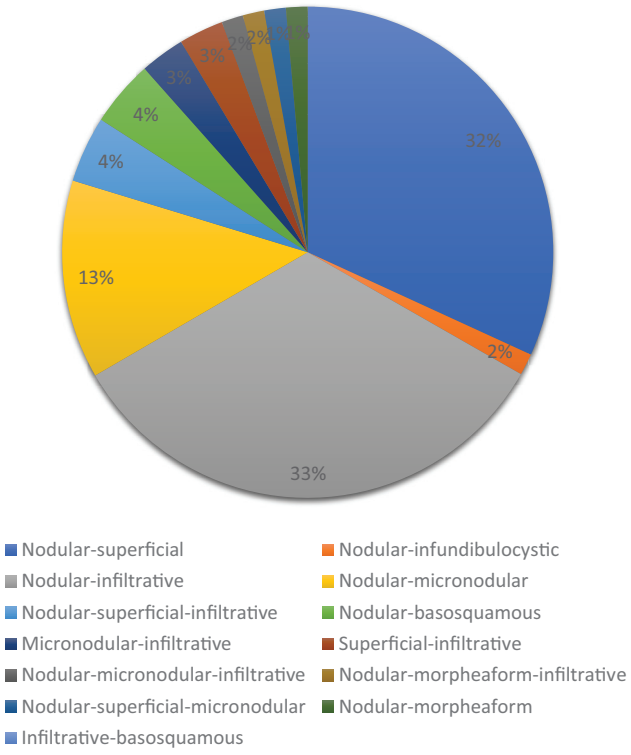

Figure 2. Histopathological subtypes of mix type BCC (N=70).

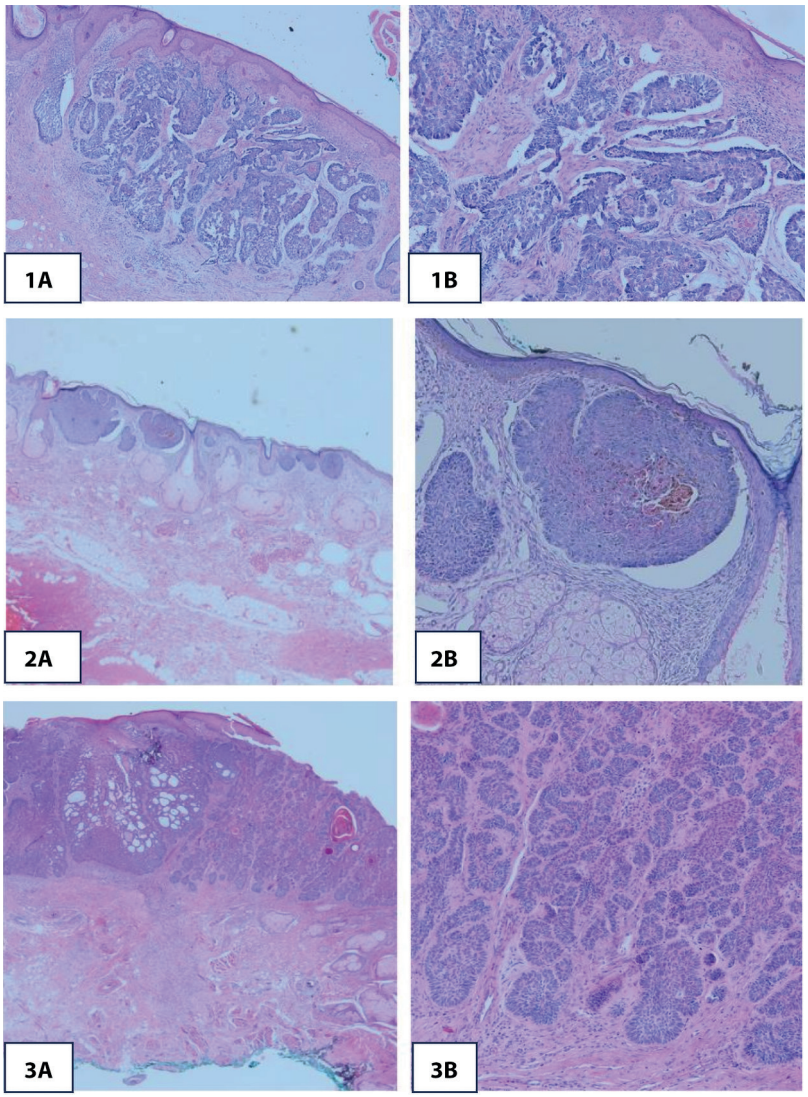

Figure 3. 1A–B) nodular-infiltrative histopathological subtype (4x–10x); 2A–B) nodular-superficial histopathological subtype (4x–10x); 3A–B) nodular-micronodular histopathological subtype (4x–10x,)

Discussion

The term "mixed-type BCC" refers to BCCs in which two distinct histopathological components coexist within a single lesion. Accurately estimating the overall prevalence of BCCs with mixed histopathology remains challenging, as published studies report inconsistent results, with prevalence rates ranging from 18% to 50%.[11] In our study, 37.6% of patients were found to have mixed-type BCC. Although BCC generally has a favorable clinical course, especially in low-risk subtypes, nonsurgical treatment modalities are increasingly being employed.[5] Notably, in our patient group, 67.1% of mixed-type BCCs contained at least one high-risk histological subtype. Furthermore, in 11 patients, although low-risk BCC was initially diagnosed by punch biopsy, subsequent total excision revealed the presence of a co-existing high-risk component. These findings suggest that mixed-type BCC is not uncommon and that high-risk subtypes may be missed when relying solely on limited biopsy techniques. Our results emphasize that dermoscopy may serve as a valuable diagnostic tool to better identify such cases and guide appropriate management.

In our study, nodular and mixed-type basal cell carcinomas were most frequently observed in the head and neck region, whereas superficial basal cell carcinomas were predominantly found on the trunk. These findings are consistent with the existing literature and are mainly attributed to chronic exposure of the head and neck to ultraviolet radiation. In a previous study conducted by Ghanadan et al.[12] , the most common mixed-type BCC combination was reported to be nodular-infiltrative BCC (34%), followed by nodular-superficial BCC (24%) and nodular-micronodular BCC

Table 1. Histopathological subtypes of single and mixed BCC.

Subtypes of BCC Single-type BCC	Frequency (%) N=116
Low risk	
Nodular	79 (68.1)
Superficial	23 (19.8)
Fibroepithelial	1 (0.9)
High risk	
Basosquamous	6 (5.2)
Infiltrative	5 (4.3)
Micronodular	2 (1.7)
Mixed-type BCC	**N=70**
Low risk	
Nodular-superficial	22 (31.4)
Nodular-infundibulocystic	1 (1.4)
High risk	
Nodular-infiltrative	23 (32.9)
Nodular-micronodular	9 (12.9)
Nodular-superficial-infiltrative	3 (4.3)
Nodular-basosquamous	3 (4.3)
Micronodular-infiltrative	2 (2.9)
Superficial-infiltrative	2 (2.9)
Nodular-micronodular-infiltrative	1 (1.4)
Nodular-morpheaform-infiltrative	1 (1.4)
Nodular-superficial-micronodular	1 (1.4)
Nodular-morpheaform	1 (1.4)
Infiltrative-basosquamous	1 (1.4)

Abbreviation: BCC: Basal cell carcinoma.

Table 2. Demographic and clinical characteristics of single-type and mixed-type BCC.

Parameters	Single type N=116	Mixed type N=70	p-value
Sex, n (%)			0.843
Male	68 (58.6)	40 (57.1)	
Female	48 (41.4)	30 (42.9)	
Anatomical locations, n (%)			0.327
Head and neck	82 (70.7)	57 (81.4)	
Trunk	23 (19.8)	10 (14.3)	
Upper extremity	9 (7.8)	3 (4.3)	
Lower extremity	2 (1.7)	0 (0.0)	
Risk category, n (%)			**<0.001**
Low risk	103 (88.8)	23 (32.9)	
High risk	13 (11.2)	47 (67.1)	

SD: standard deviation

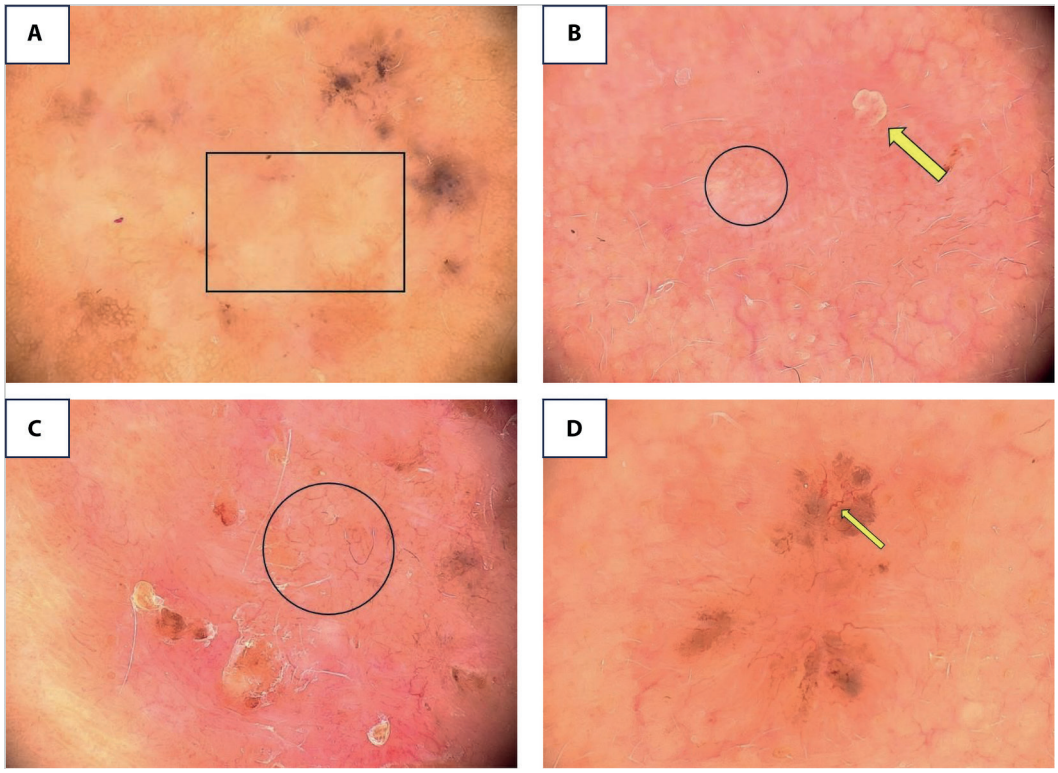

Figure 4. A) yellow-white structureless area (rectangle) in mixed-type BCC; B) rosette structure (circle) and scale (arrow) in mixed-type BCC; C) Short fine telangiectasias (circle) in mixed-type BCC; D) corkscrew vessel (yellow arrow) in single-type BCC.

Table 3. Comparison of dermoscopic findings between single-type and mixed-type BCCs.

Dermoscopic findings, n (%)	Total N=186	Single type N=116	Mixed type N=70	p-value
Vascular structures				
Arborizing vessel	78 (41.9)	49 (42.2)	29 (41.4)	0.913
Linear irregular vessel	67 (36.0)	39 (33.6)	28 (40.0)	0.380
Short fine telangiectasia	53 (28.5)	22 (19.0)	31 (44.3)	**<0.001**
Corkscrew vessel	44 (23.7)	33 (28.4)	11 (15.7)	**0.048**
Polymorphous vessel	27 (14.5)	15 (12.9)	12 (17.1)	0.430
Dotted vessel	22 (11.8)	12 (10.3)	10 (14.3)	0.420
Forked vessel	13 (7.0)	7 (6.0)	6 (8.6)	0.560
Glomerular vessel	9 (4.8)	5 (4.3)	4 (5.7)	0.731
Comma vessel	7 (3.8)	3 (2.6)	4 (5.7)	0.428
Pigmented structures				
Blue-gray ovoid nest	77 (41.4)	48 (41.4)	29 (41.4)	0.995
Multiple blue-gray globules	60 (32.3)	36 (31.0)	24 (34.3)	0.646
Focused dot	44 (23.7)	28 (24.1)	16 (22.9)	0.842
Leaf-like area	43 (23.1)	29 (25.0)	14 (20.0)	0.433
Wheel-like structure	20 (10.8)	16 (13.8)	4 (5.7)	0.085
Concentric structure	10 (5.4)	5 (4.3)	5 (7.1)	0.506

Table 3 continues

Table 3. Comparison of dermoscopic findings between single-type and mixed-type BCCs. *(continued)*

Dermoscopic findings, n (%)	Total N=186	Single type N=116	Mixed type N=70	p-value
Nonpigmented structures				
Crystalloid-like structure	99 (53.2)	65 (56.0)	34 (48.6)	0.323
Pink-white structureless area	83 (44.6)	54 (46.6)	29 (41.4)	0.496
Ulceration	79 (42.5)	43 (37.1)	36 (51.4)	0.055
Yellow-white structureless area	61 (32.8)	31 (26.7)	30 (42.9)	**0.023**
Multiple small erosions	31 (16.7)	17 (14.7)	14 (20.0)	0.343
Unclassified other structures				
Scale	63 (33.9)	32 (27.6)	31 (44.3)	**0.020**
Blue-white veil	35 (18.8)	25 (21.6)	10 (14.3)	0.219
MAY globule	13 (7.0)	8 (6.9)	5 (7.1)	1.000
Rosette structure	11 (5.9)	2 (1.7)	9 (12.9)	**0.003**
Rainbow pattern	9 (4.8)	8 (6.9)	1 (1.4)	0.157
Milia-like cyst	6 (3.2)	4 (3.4)	2 (2.9)	1.000

(20%). The findings obtained in our study were consistent with these results. High-risk combinations such as nodular-infiltrative and nodular-micronodular subtypes should be carefully assessed for the need for surgical treatment.

Lallas et al.[13] systematically defined the dermoscopic criteria associated with basal cell carcinoma (BCC), which include arborising vessels, short fine telangiectasias, multiple blue-gray globules, blue-gray ovoid nests, spoked wheel structures, focused dots, leaf-like areas, concentric structures, multiple small erosions, ulceration, shiny pink-white structureless areas, and crystalloid-like structures. In addition, short fine telangiectasias, multiple small erosions, and shiny pink-white structureless areas were found to be particularly associated with superficial-type BCC.[14] In a study conducted by Emiroglu et al.[15], the most frequently detected dermoscopic features in mixed-type BCC were leaf-like areas (66.7%), spoke wheel structures (50%), blue-gray ovoid nests (50%), and short fine telangiectasias (40%). Similarly, in a study by Urun et al.[16], the most common dermoscopic findings in mixed-type BCC were shiny pink-white structureless areas (72.7%), short fine telangiectasias (54.5%), crystalloid-like structures (45.5%), and ulceration (45.5%). In our study, the most frequently observed dermoscopic findings in mixed-type BCC were ulceration (51.4%), crystalloid-like structures (48.6%), short fine telangiectasias (44.3%), scale (44.3%), and shiny pink-white structureless areas (41.4%). The differences between our findings and those reported by Emiroğlu et al.[15] may be attributed to the variations in the combinations of histopathological subtypes present within the mixed-type BCC lesions included in our study.

When examining the distribution of dermoscopic findings of the superficial histopathological subtype within the single and mixed groups, the presence of ulceration was found to be statistically more common in mixed superficial BCCs compared to single superficial BCCs. In patients diagnosed with superficial BCC based on punch biopsy, the dermoscopic detection of ulceration within the lesion may serve as an indication that the excised lesion may in fact be a mixed-type BCC with a superficial component.

In mixed-type infiltrative BCCs, dotted and glomerular vessels were more frequently observed, whereas in mixed-type superficial BCCs, arborizing and dotted vessels were less commonly seen. This finding may be associated with increased angiogenesis in high-risk subtypes.

Another diagnostic challenge is the differentiation between mixed-type BCC and collision tumors. In collision tumors, two distinct dermoscopic patterns usually coexist, with a sharp demarcation between them[17]. In contrast, in mixed-type BCC, the dermoscopic features of different histopathological components are intermingled within the same lesion. This distinction is important, as it may influence both histopathological interpretation and therapeutic decisions.

This study has some limitations. First, lesion size was not systematically recorded in our dataset and therefore could not be analyzed. Second, as this was a retrospective single-center study, variations in image acquisition and potential pressure artifacts may have influenced the visibility of vascular structures. Finally, although our sample included a relatively large number of lesions collected over 10 years, multicenter prospective studies with standardized imaging protocols are needed to validate our findings.

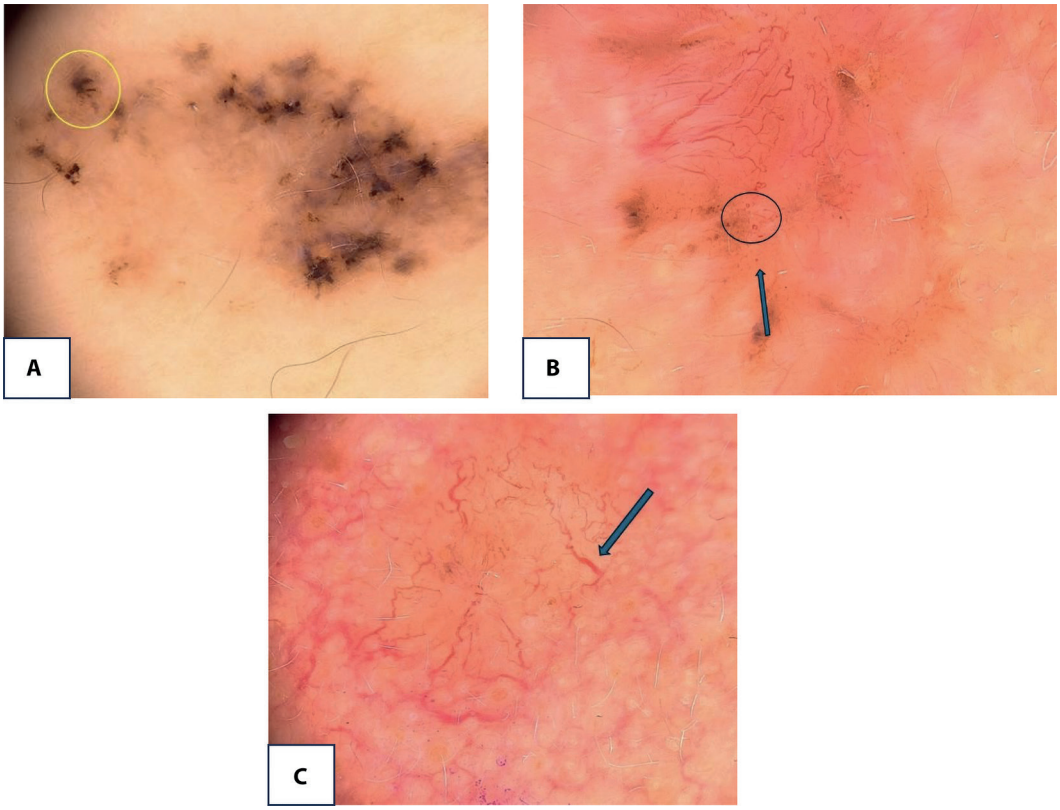

Figure 5. A) spoke wheel–like structure (yellow circle) more frequently observed in mixed-type BCCs with a superficial component compared to other mixed-type BCC; B) dot vessel (blue arrow) and glomerular vessel (blue circle) more frequently observed in mixed-type BCCs with an infiltrative component compared to other mixed-type BCC; C) arborizing vessel (blue arrow) more frequently observed in mixed-type BCCs with a basosquamous component compared to other mixed-type BCC.

Table 4. Distribution of dermoscopic findings across different histopathological subtypes in mixed-type basal cell carcinomas.

Dermoscopic findings, n (%)	Nodular N=65	Superficial N=28	Micronodular N=13	Morpheaform N=2	Infiltrative N=33	Basosquamous N=4
Vascular structures						
Arborizing vessel	27 (41.5)	**7 (25.0)***	8 (61.5)	0 (0.0)	14 (42.4)	**4 (100.0)***
Linear irregular vessel	25 (38.5)	14 (50.0)	3 (23.1)	1 (50.0)	13 (39.4)	3 (75.0)
Short fine telangiectasia	30 (46.2)	15 (53.6)	5 (38.5)	2 (100.0)	11 (33.3)	1 (25.0)
Corkscrew vessel	9 (13.8)	2 (7.1)	3 (23.1)	0 (0.0)	7 (21.2)	1 (25.0)
Polymorphous vessel	11 (16.9)	5 (17.9)	2 (15.4)	0 (0.0)	7 (21.2)	1 (25.0)
Dotted vessel	10 (15.4)	**1 (3.6)***	1 (7.7)	1 (50.0)	**8 (24.2)***	1 (25.0)
Forked vessel	5 (7.7)	4 (14.3)	0 (0.0)	0 (0.0)	4 (12.1)	0 (0.0)
Glomerular vessel	4 (6.2)	0 (0.0)	1 (7.7)	0 (0.0)	**4 (12.1)***	0 (0.0)
Comma vessel	3 (4.6)	3 (10.7)	0 (0.0)	0 (0.0)	3 (9.1)	0 (0.0)

Table 4 continues

Table 4. Distribution of dermoscopic findings across different histopathological subtypes in mixed-type basal cell carcinomas. *(continued)*

Dermoscopic findings, n (%)	Nodular N=65	Superficial N=28	Micronodular N=13	Morpheaform N=2	Infiltrative N=33	Basosquamous N=4
Pigmented structures						
Blue-gray ovoid nest	28 (43.1)	14 (50.0)	7 (53.8)	0 (0.0)	**8 (24.2)***	2 (50.0)
Multiple blue-gray globules	22 (33.8)	10 (35.7)	6 (46.2)	0 (0.0)	8 (24.2)	2 (50.0)
Focused dot	15 (23.1)	6 (21.4)	6 (46.2)	0 (0.0)	**3 (9.1)***	2 (50.0)
Leaf-like area	14 (21.5)	8 (28.6)	1 (7.7)	0 (0.0)	4 (12.1)	0 (0.0)
Spoke-wheel-like structure	4 (6.2)	**4 (14.3)***	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Concentric structure	5 (7.7)	3 (10.7)	0 (0.0)	0 (0.0)	2 (6.1)	0 (0.0)
Nonpigmented structures						
Ulceration	35 (53.8)	16 (57.1)	7 (53.8)	1 (50.0)	16 (48.5)	2 (50.0)
Crystalloid-like structure	31 (47.7)	14 (50.0)	6 (46.2)	1 (50.0)	16 (48.5)	2 (50.0)
Pink-white structureless area	28 (43.1)	15 (53.6)	3 (23.1)	1 (50.0)	15 (45.5)	1 (25.0)
Yellow-white structureless area	27 (41.5)	11 (39.3)	5 (38.5)	1 (50.0)	16 (48.5)	2 (50.0)
Multiple small erosions	12 (18.5)	8 (28.6)	1 (7.7)	0 (0.0)	6 (18.2)	1 (25.0)
Unclassified other structures						
Scale	30 (46.2)	12 (42.9)	4 (30.8)	0 (0.0)	16 (48.5)	1 (25.0)
Blue-white veil	10 (15.4)	3 (10.7)	4 (30.8)	0 (0.0)	2 (6.1)	1 (25.0)
Rosette structure	9 (13.8)	4 (14.3)	2 (15.4)	0 (0.0)	4 (12.1)	1 (25.0)
Rainbow pattern	1 (1.5)	0 (0.0)	0 (0.0)	0 (0.0)	1 (3.0)	0 (0.0)
MAY globule	5 (7.7)	1 (3.6)	1 (7.7)	0 (0.0)	2 (6.1)	1 (25.0)
Milia-like cyst	2 (3.1)	0 (0.0)	0 (0.0)	0 (0.0)	1 (3.0)	1 (25.0)

* It is significantly different from the other histopathological subtypes ($P<0.05$).

Conclusion

In conclusion, our study aimed to demonstrate that mixed-type basal cell carcinomas (BCCs) may exhibit distinct dermoscopic features compared to single-type BCCs. We highlighted that in the presence of certain dermoscopic clues, diagnostic results obtained through punch or other types of incisional biopsies may be misleading. Therefore, although BCCs generally follow a benign course, dermoscopy can serve as a valuable diagnostic tool in identifying high-risk subtypes.

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