DOI: https://doi.org/10.4038/sljd.v25i1.392 SLJD Open Access

CASE REPORT

Clinical spectrum of Bowen's disease in pigmented skin: report of five cases from Colombo South Teaching Hospital, Sri Lanka

Kasun Adhikari[1], Avindi Wickramanayake[1], Nirosha Dushyanthy[1], Arulenthiran S Rajadurai[1], Cherine Sosai[2], Safrana Fazeel[2]

[1]Dermatology Unit, Colombo South Teaching Hospital, Kalubowila, Sri Lanka.
[2]Histopathology Unit, Colombo South Teaching Hospital, Kalubowila, Sri Lanka.

Correspondence: Kasun Adhikari, kasuntharindu@gmail.com

Abstract

Bowen's Disease (BD), also termed squamous cell carcinoma in situ, is a non-invasive intraepidermal malignancy characterized by solitary or multiple, slowly enlarging erythematous, scaly papules or plaques. Lesions typically exhibit well-demarcated margins, although border irregularity may be present. We report a case series of five adult patients diagnosed with Bowen's disease, each demonstrating diverse pigmentary and morphological variations. This heterogeneity in clinical presentation underscores the diagnostic complexity of the condition. The lesions exhibited variable morphologies – including differences in color, texture, and border definition – and were distributed across multiple anatomical regions.

Continued reporting of such atypical and varied manifestations is critical to improving diagnostic accuracy and clinician awareness, particularly in regions where Bowen's disease is frequently underrecognized or misdiagnosed.

Keywords: Bowen's disease; squamous cell carcinoma in situ; pigmented skin; dermoscopy; case series

Conflicts of Interest: None declared

Funding: None

Received: 29 March 2026 Revised: 01 May 2026 Accepted: 05 May 2026

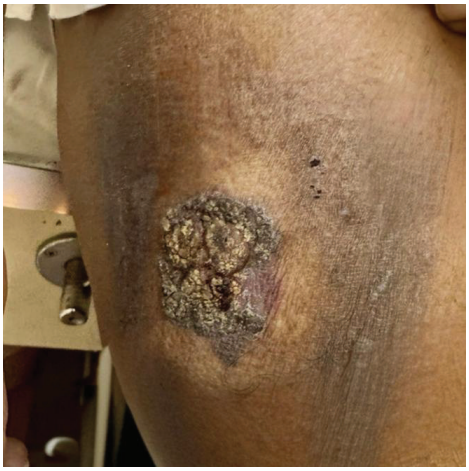
How to cite this article: Adhikari K, Wickramanayake A, Dushyanthy N, Rajadurai AS, Sosai C, Fazeel S. Clinical spectrum of Bowen's disease in pigmented skin: Report of five cases from Colombo South Teaching Hospital, Sri Lanka. Sri Lanka J Dermatol. 2026;25(1):124-130. doi: https://doi.org/10.4038/sljd.v25i1.392

Introduction

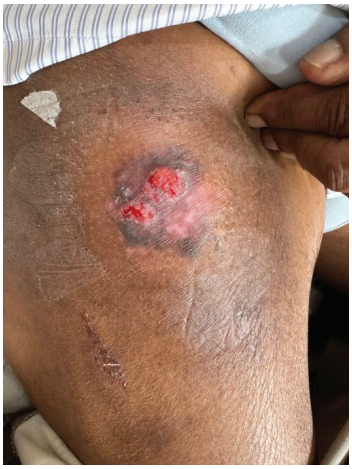
Bowen's disease is an intraepidermal squamous cell carcinoma presenting as a scaly or crusted erythematous plaque. It commonly arises on sun-exposed skin but can occur on any mucocutaneous site. Though rare, it carries a 3–5% risk of progression to invasive cutaneous SCC.[1] Early recognition and treatment are crucial to prevent malignant transformation. Bowen's disease may occur at any age in adults, but is uncommon before the age of 30 years; most patients are aged over 60, and the male to-female ratio is found to be approximately equal.[2] Any site may be affected; common sites include the flexural, perianal, subungual, and genital region, while involvement of palms or soles is uncommon.[2] Several etiological factors of Bowen's disease have been reported, such as chronic solar damage, arsenic exposure, immunosuppression, human papilloma viruses, and some others, such as ionizing radiation, chronic injury, or dermatoses.[2]

Case Presentation

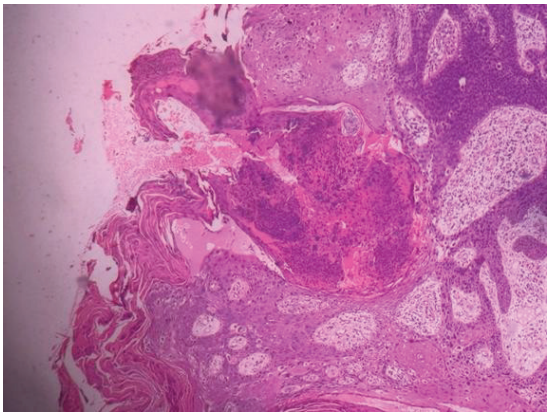
Case 1: A 71-year-old male with diabetes mellitus and hypertension presented with a hyperkeratotic plaque measuring 3 × 4 cm on the right lateral thigh, present for seven years. The lesion initially appeared as a 1 × 1 cm hyperpigmented papule that enlarged over two years, remained static for three years, and subsequently showed rapid enlargement with color variation, crusting, central fissuring, and malodor. Topical antimicrobials and corticosteroids were ineffective. A punch biopsy confirmed Bowen's disease (squamous cell carcinoma in situ). The patient commenced on liquid nitrogen cryotherapy at two-weekly intervals, with noted clinical improvement (Figure 1 A-C).



A



B

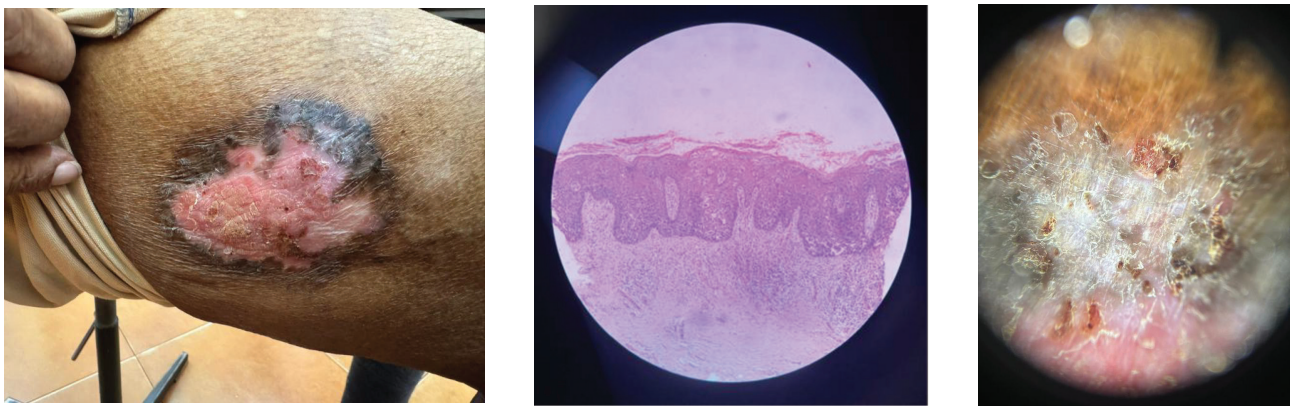


C

Figure 1. Case 1 (A) Initial clinical presentation. (B) Appearance after one month of liquid nitrogen cryotherapy. (C) Histology of the lesion (H&E ×100).

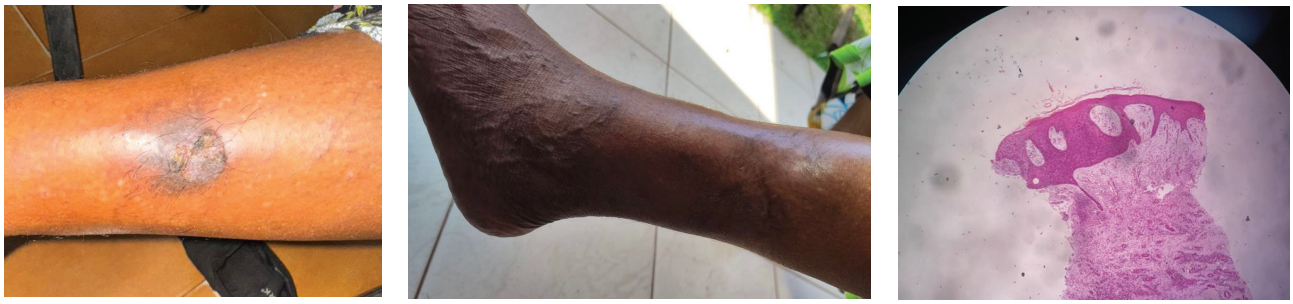
Case 2: An 85-year-old male with longstanding hypothyroidism, bronchial asthma, diabetes mellitus, and chronic renal failure presented to the Dermatology Clinic of Colombo South Teaching Hospital with a thick plaque on the posterior aspect of the right upper thigh. The lesion was characterized by a hyperpigmented scaly border and pinkish center, complicated by recent central ulceration and mild bleeding. Twenty-five years earlier, a warty growth on the right lateral upper thigh had been excised uneventfully, but within a year, a hyperpigmented patch developed at the site and progressively enlarged over decades, remaining asymptomatic until the recent ulceration. Multiple topical therapies had been ineffective. Punch biopsy confirmed Bowen's disease (squamous cell carcinoma in situ), and the patient was referred to the Plastic Surgery Unit for definitive excision (Figure 2 A-C).

Case 3: A 58-year-old female with hypertension and dyslipidemia presented to Colombo South Teaching Hospital with a rapidly enlarging plaque over the left pretibial area, arising from a chronic trauma-induced ulcer of six years' duration. The lesion, which had previously followed a cyclical course of partial healing and worsening, showed sudden enlargement within one month, accompanied by pain, yellowish discharge, and central fissuring, but without bleeding or lymphadenopathy. Examination revealed a hyperpigmented discoid plaque with peripheral pigmentation, central cracks, and mild oozing, while the surrounding skin was otherwise normal. A punch biopsy confirmed Bowen's disease, and the patient was referred to the Plastic Surgery Unit for complete excision (Figure 3 A-C).



A B C

Figure 2. Case 2. (A) Initial clinical presentation. (B) Histology of the lesion (H&E ×100). (C) Dermoscopy appearance of the lesion.



A B C

Figure 3. Case 3 (A) Initial clinical presentation. (B) After complete surgical resection of the lesion. C. Histology of the lesion (H&E ×100).

Case 4: A 77-year-old male with a history of diabetes mellitus and hypertension presented to the dermatology clinic at Kalubowila with a solitary amoeboid plaque on the right upper chest. The lesion demonstrated pigmentary variation and had recently undergone rapid enlargement with newly developed crustation. The patient reported the presence of a small scaly plaque at the same site 20 years earlier, which progressively enlarged over time with alternating periods of moisture and dryness. He denied any history of significant sun exposure, trauma, or ulceration at the site. A punch biopsy of the lesion confirmed Bowen's disease (squamous cell carcinoma in situ). The patient underwent a three-month course of topical imiquimod therapy, which was associated with gradual and sustained clinical improvement over the treatment period (Figure 4 A-E).

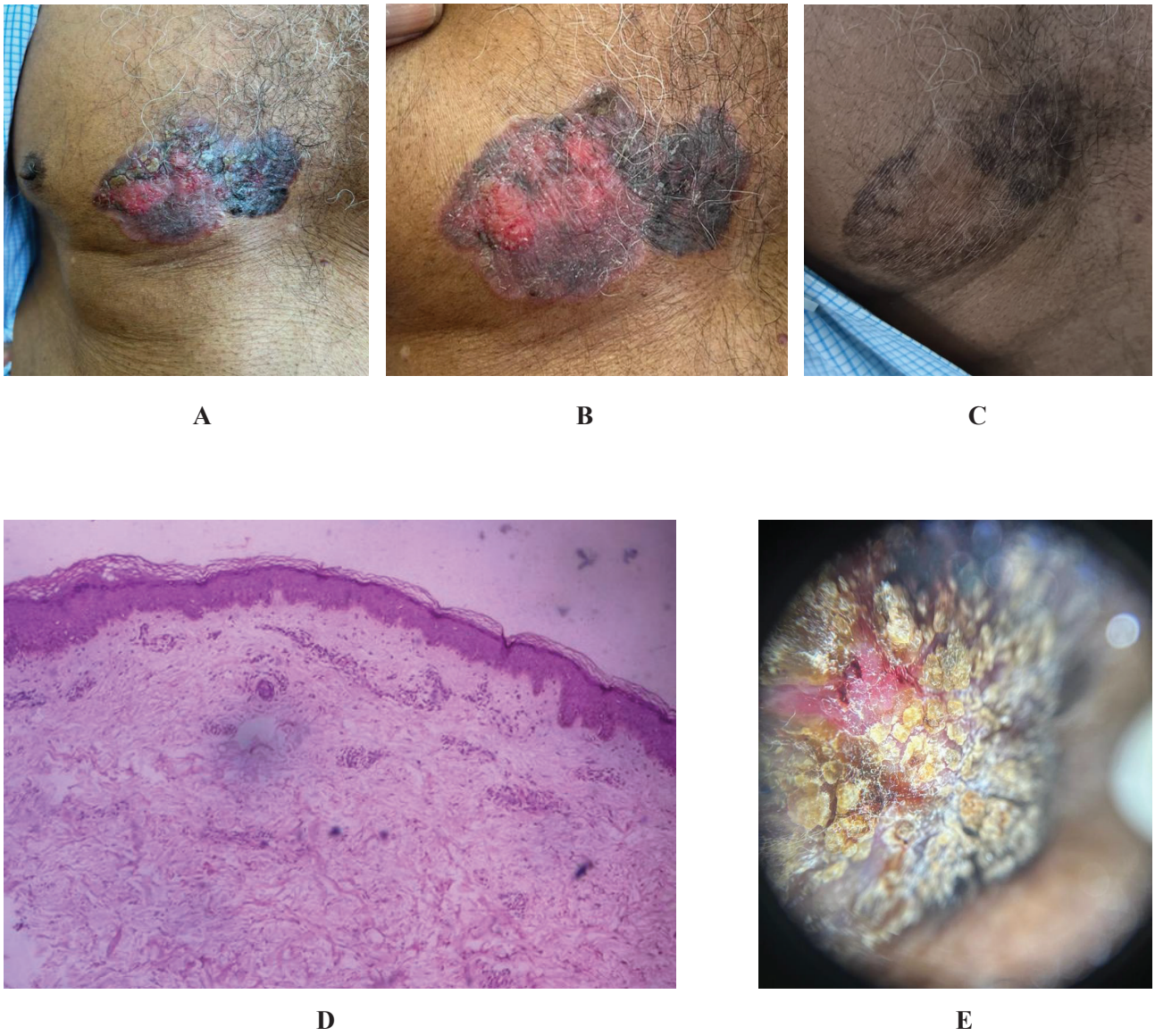


Figure 4. Case 4 (A) Initial clinical presentation. (B) One month after Imiquimod treatment. (C) Three months after Imiquimod treatment. (D) Histology of the lesion (H&E ×100) (E) Dermoscopy of the lesion.

Case 5: A 54-year-old female with a past medical history of dyslipidemia presented with a two-year history of a progressively enlarging lesion on the right lower cheek. The lesion was described as hyperpigmented and granulomatous, with irregular borders. It remained asymptomatic throughout its course, with cosmetic disfigurement being the patient's primary concern. She is a housewife and reported no history of prolonged sun exposure. The lesion initially appeared as a small papule and gradually increased in size over the observed period. A skin punch biopsy confirmed the diagnosis of Bowen's disease. Following histopathological confirmation, the patient was initiated on a three-month course of topical imiquimod therapy. The treatment was well tolerated and resulted in satisfactory clinical improvement, with progressive resolution of the lesion noted over the treatment period (Figure 5 A-D).

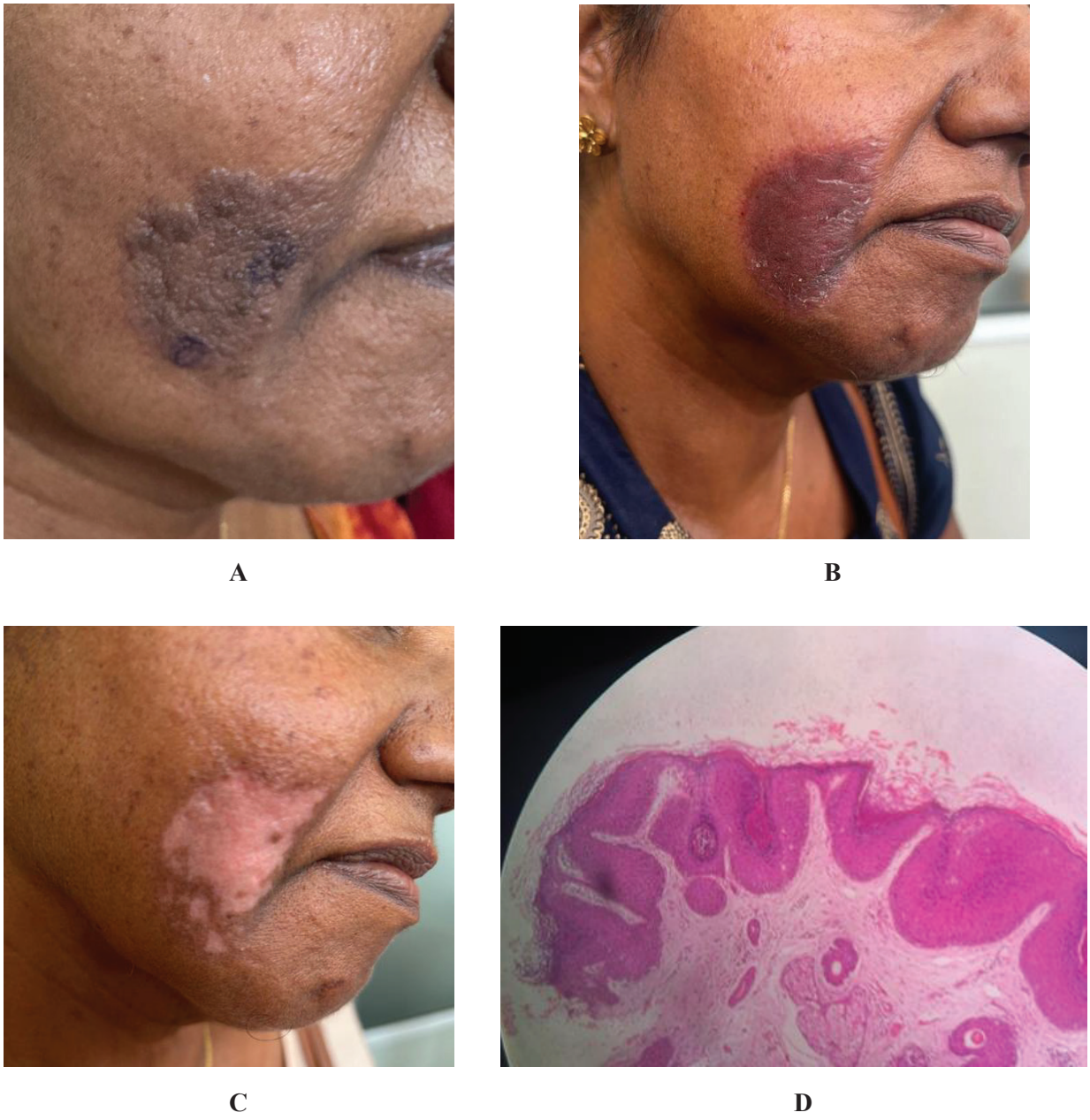


Figure 5. Case 5 (A) Initial clinical presentation. (B) One month after Imiquimod treatment. (C) Three months after Imiquimod treatment. (D) Histology of the lesion (H&E ×100)

Discussion

This case series comprised five patients, including three males and two females, all diagnosed after the age of 50 years. The male patients were older, with diagnoses made beyond 70 years of age, whereas the female patients presented between 50 and 60 years. Lesions were distributed across both axial and appendicular sites, with two cases involving the upper trunk and three affecting the lower limbs. In terms of exposure, two lesions were located on sun-exposed areas, while three were confined to covered regions, suggesting variable environmental influence. One patient reported a history of prior warts at the same lesion site, indicating possible local predisposition. The disease course was characteristically chronic, with durations ranging from over two years to as long as 25 years, underscoring its indolent yet persistent nature. Management strategies varied: one patient was treated with liquid nitrogen cryotherapy, two received topical imiquimod therapy, and two underwent surgical excision, reflecting a spectrum of therapeutic approaches tailored to lesion characteristics and patient factors. (Table 1)

Dermoscopy is an important tool for distinguishing Bowen's disease from other pigmented or keratinizing lesions, as it reveals several characteristic features that support early recognition. The most consistent findings include clusters of glomerular vessels and surface scaling, reflecting the vascular and keratinizing changes of the lesion. Additional dermoscopic signs, such as brown or gray dots and structureless areas, correspond to atypical keratinocyte proliferation, while irregular pigmentation and sharply demarcated borders provide further diagnostic clues.[3] Taken together, these features enhance clinical suspicion, allowing timely biopsy and histopathological confirmation, thereby facilitating accurate diagnosis and management.

Histopathological evaluation in these cases demonstrated full-thickness atypia of the epidermis with disordered maturation, consistent with intra-epidermal carcinoma.[3] The keratinocytes showed marked pleomorphism, hyperchromatic nuclei, and frequent mitotic activity, highlighting their proliferative instability. Dyskeratosis and loss of normal polarity were prominent with a characteristic "windblown appearance", further supporting the diagnosis.[2] Importantly, the basement membrane remained intact, confirming the lesion as carcinoma in situ without evidence of invasion. Within the dermis, a variable inflammatory infiltrate was frequently observed beneath the atypical epidermis, reflecting the host immune response to neoplastic change.[1]

Table 1. Clinical characteristics of patients with Bowen's disease

Case	Age	Gender	Occupation	Site	Appearance	Sun Exposure	Duration (years)	Treatment
One	71	Male	Businessman	Right lateral thigh	Hyperkeratotic Plaque	No	7	Liquid nitrogen
Two	85	Male	Teacher	Right posterior thigh	Thick Plaque, hyperpigmented scaly border, and pinkish center	No	25	Surgical excision
Three	58	Female	Clerk	Left pre-tibial area	Hyperpigmented discoid plaque with peripheral pigmentation	Yes	6	Surgical excision
Four	77	Male	Businessman	Right upper chest	Amoeboid plaque with pigmentary variation	No	20	Topical imiquimod therapy
Five	54	Female	Housewife	Right lower cheek	Hyperpigmented and Granulomatous	Yes	2	Topical imiquimod therapy

Conclusion

Bowen's disease in pigmented skin demonstrates considerable clinical heterogeneity, with variable presentations and outcomes that differ from those seen in lighter phototypes. Lesions often show chromatic variation, ranging from violaceous to hyperpigmented tones rather than the classic erythematous or pink plaques typical in fairer skin. Anatomical distribution also diverges from the expected pattern, as three of the five cases in this series arose in non-sun-exposed regions such as the trunk and proximal limbs, despite the condition's usual association with sun-exposed sites like the face, neck, and dorsal extremities. These atypical color and site patterns emphasize the need for heightened clinical vigilance, as a timely biopsy remains essential to secure an accurate diagnosis and guide appropriate management.

Ethics statement

Written informed consent was obtained from all patients for publication of this case series and accompanying images.

Authors' contributions

AW and ND were responsible for patient management, clinical follow-up, and data collection. ASR provided overall supervision and guidance in case collection, diagnosis, and the determination of appropriate management options. SF assisted in tracing and imaging the histology slides. CS performed the histopathological examination and managed the histological aspects of the cases. KA was responsible for patient management, manuscript writing, and conceptualization of the case series. All authors read and approved the final manuscript.

Acknowledgements

We extend our gratitude to our medical colleagues and healthcare staff whose dedication and collaborative efforts were vital in managing these patients effectively and achieving a favorable clinical outcome.

References

1. Djuanda SD, Prayogo DL, Djuanda D, Tanurahardja B, Winaya KK. Unveiling Bowen's disease on lower limb: a case report of long-term misdiagnosis as dermatitis. Int J Adv Med. 2025;12(5):487-90. doi: 10.18203/2349-3933.ijam20252534
2. Nagakeerthana S, Rajesh G, Madhavi S, Karthikeyan K. Bowen's disease: Two case reports of a giant and dwarf lesions. J Cancer Res Ther. 2017;13(2):371-3. doi: 10.4103/0973-1482.187237
3. Seethalakshmi IG, Vellaisamy G, Manickam N, Gopalan K. Pigmented Bowen's disease over the right chest-A rare case report. J Pak Assoc Dermatol. 2022;32(1):241-4.