Sir,
An 82-year-old Japanese woman presented with a 2-year history of a nonhealing ulcer on the left breast without pain or pruritus. There is no history of arsenic exposure. Physical examination revealed a well-demarcated erythematous plaque with erosions on the areola [Figure 1]. Dermoscopic findings showed irregular white reticular structure with various blood vessels [Figure 2]. The skin on the nipple was intact. No palpable lymph nodes (axillary and others) were noted. Histopathological findings revealed pagetoid cells in all layers of the epidermis [Figure 3]. On immunohistochemical staining, the pagetoid cells were positive for CK5/6 and p63 [Figure 4] but negative for CK7, CK20, GCDFP15, PAS, S-100 protein, Melan A, and HMB-45. Therefore, pagetoid Bowen’s disease (PBD) was suspected. After the complete excision, the specimen showed more typical areas of Bowen’s disease that displayed dyskeratotic cells and multinucleated giant cells in the epidermis [Figure 5]. Immunohistochemistry showed the same findings as

![Figure 1](image1.png)
Figure 1: A well-demarcated erythematous plaque with erosions on the areola with intact skin of the nipple

![Figure 2](image2.png)
Figure 2: Dermoscopy showing irregular white reticular structure with various blood vessels

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**Diagnostic Clues for Pagetoid Bowen’s Disease**

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the biopsy one. Consequently, the diagnosis of PBD was confirmed.

Bowen’s disease is a form of cutaneous squamous cell carcinoma in situ more commonly developing on sun-exposed sites. Bowen’s disease of the breast is extremely rare. With only 9 cases reported in the English literature so far, and none of them is PBD on nipple-areola complex. [1] PBD, in which pagetoid cells are observed histologically, accounts for 5% of Bowen’s disease. [2] The pagetoid growth pattern mimics mammary Paget’s disease and superficial spreading melanoma. [3] The treatment, surgical margin of excision, and the follow-up period are different, so it is crucial to make the exact diagnosis. Histopathological features for PBD include the existence of dyskeratotic cells, multinucleated giant cells, desmosomes among pagetoid cells, and pagetoid cells existing in all layers of the epidermis. In contrast, pagetoid cells tend to exist only in the lower layer of epidermis in mammary Paget’s disease and malignant melanoma. Nevertheless, it is sometimes difficult to differentiate from one another without the help of immunohistochemistry. [4] In PBD, pagetoid cells typically stain for CK 5/6 and p63. GCDFP15 and PAS expression are observed in mammary Paget’s disease. S-100 and HMB-45 are useful markers for malignant melanoma. Notably, CK7 expression is almost always observed in mammary Paget’s disease. However, cases of PBD with positive CK7 expression have been reported. Although our case shows negative expression for CK7, CK7 expression is not always a helpful marker to differentiate PBD from mammary Paget’s disease. [5] Mammary Paget’s disease is frequently associated with underlying breast carcinoma, which often originates from lactiferous ducts. [6] Therefore, the clinical lesion usually starts from the nipple, then it extends to the areola and surrounding skin. In contrast, in our case of PBD, the lesion only involved the areola and left the skin of the nipple uninvolved. The clinical appearance without nipple involvement actually gave us a hint that this disease might not arise from the nipple or the underlying lactiferous ducts. Consequently, the existence of clinical nipple involvement can also be a clue to tell the difference between PBD and mammary Paget’s disease.

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.

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