



# Pagetoid Bowen Disease of the Nipple-Areola Complex: A Diagnostic Pitfall

Dr. Mark Austin Raj X, Dr. Bharti Aggarwal, Dr. Nadeem Tanveer,  
Dr. Archana Singhal, Dr. Tripti Nakra



## INTRODUCTION

- Bowen disease is squamous cell carcinoma in situ, confined to the epidermis.
- It typically involves sun-exposed skin; nipple-areola involvement is infrequent
- Clinically and histologically **mimics mammary Paget disease** and melanoma in situ, creating a diagnostic dilemma.
- Histopathology and immunohistochemistry are essential for accurate diagnosis.

## CASE REPORT

- Patient: **68-year-old male**
- Presentation: Hyperpigmented plaque over the right breast extending to nipple-areola complex of **~4 × 5 cm**
- Duration: 3 years
- Mild scaling; no ulceration, induration, discharge, or pain



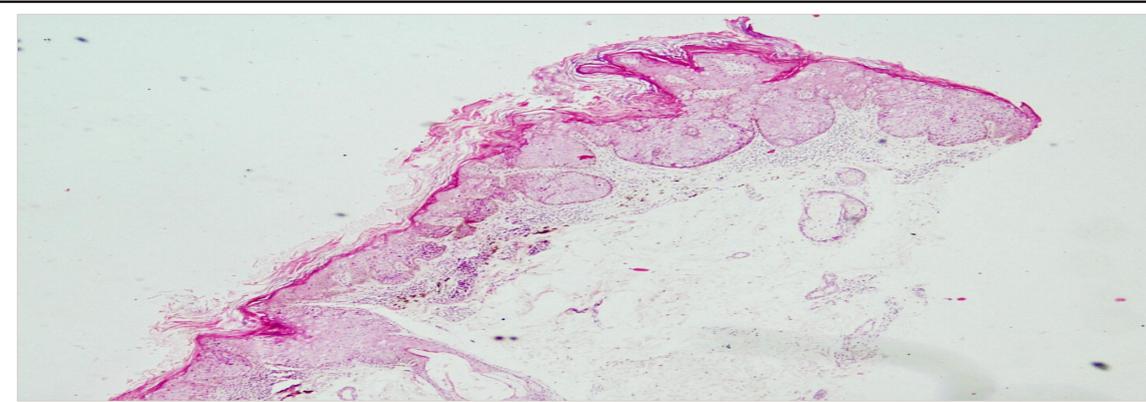
## HISTOPATHOLOGY (H&E) and IHC

Epidermis shows:

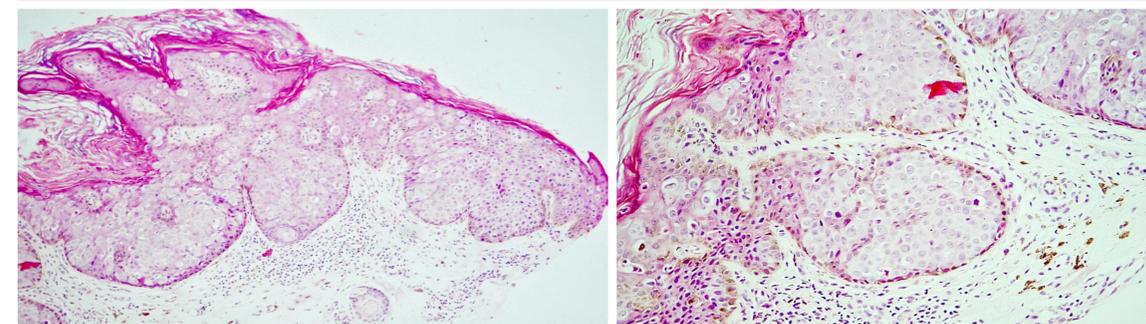
- Atypical cells singly and in clusters, and in areas seen in full thickness
- Abundant cytoplasm, nuclear pleomorphism
- Pagetoid upward spread
- **Basement membrane intact** (no invasion)

Dermis: Mild lymphocytic infiltrate

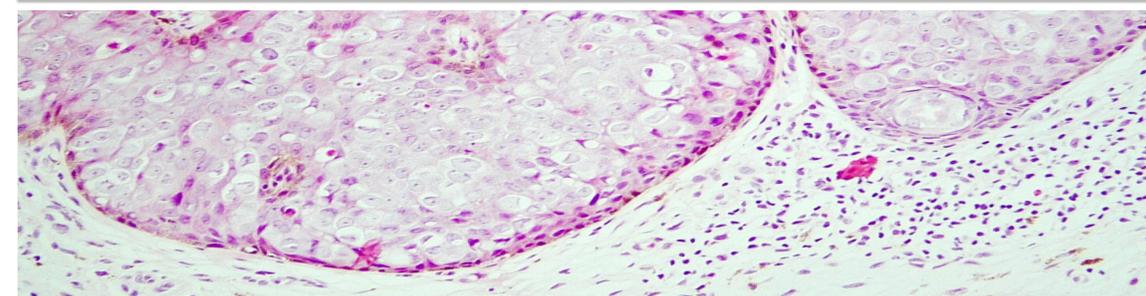
- **p40:** Strong diffuse positivity
- **CK7:** Negative
- **HER2:** Negative
- **ER / PR:** Negative
- **HMB45:** Negative



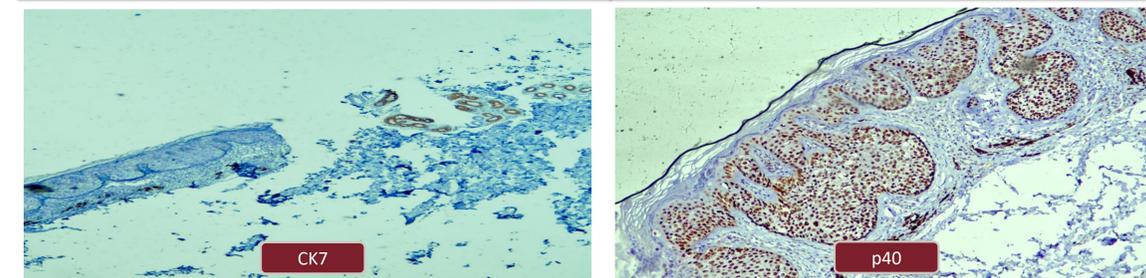
Full-thickness epidermal involvement (H&E, x40)



Pagetoid upward spread and bulbous rete ridges (H&E, x100)



Atypical cells with abundant cytoplasm and nuclear pleomorphism and intact basement membrane (H&E, x400).



Tumor cells are negative for CK7 and show diffuse nuclear positivity for p40

## DIAGNOSIS & MANAGEMENT

- **Bowen Disease (Squamous Cell Carcinoma in situ) involving the Nipple-Areola Complex**
  - Given the non-invasive nature and sensitive site:
  - **Topical 5-Fluorouracil (5-FU)** therapy was initiated
- Outcome:
- Complete clinical resolution
  - Healed lesion with flattened, hyperpigmented scar-like area
  - No evidence of recurrence on follow-up

## DISCUSSION & CONCLUSION

- Bowen disease of the nipple-areola complex is infrequent.
- Pagetoid morphology causes overlap with mammary Paget disease, and melanoma
- **p40 positivity with CK7 and HER2 negativity** is decisive for diagnosis.
- Correct diagnosis avoids unnecessary aggressive surgical management
- Clinicopathologic correlation with targeted IHC is crucial for accurate diagnosis.
- **Topical therapy can achieve excellent outcomes** in non-invasive lesions at sensitive sites.

## REFERENCES

1. **Chen X, An L, Zhao Y, Jia Y.** Pagetoid Bowen disease of the nipple. *BMC Geriatr.* 2025;25:542.
2. **Kazakov DV, Spagnolo DV, Kacerovska D, et al.** Pagetoid SCC in situ mimicking Paget disease. *Am J Dermatopathol.* 2011;33:483-489.