

signet ring cell carcinoma. Unlike in a Plasmacytoma, there is lack of a perinuclear hof and absence of binucleation and multinucleation in PUC. The presence of focal signet ring cell morphology in the present case also led to confusion with a Signet ring cell carcinoma. Although the nuclei were eccentrically placed, the classical peripherally compressed nuclei seen in Signet ring cell carcinoma were lacking. The other differential diagnosis include metastatic carcinoma from breast or stomach, malignant melanoma and a rhabdomyosarcoma all of which can have a plasmacytoid morphology.

The role of Immunohistochemistry in the diagnosis of PUC and in differentiating these lesions from other closely resembling tumors is invaluable. Many studies have shown that PUC is positive for CK-7, CK-20, CK, AE1/AE3, EMA and CD-138, but negative for LCA, S 100, HMB 45, κ and λ light chains,^{4,6,7} as was seen in our case also. Loss of E-cadherin expression has also been found to be a prominent feature of PUC and may account for its highly aggressive nature. [8] E-cadherin is important in cell-to-cell adhesion and its loss has been associated with the loss of cellular differentiation and increased invasiveness. In addition, dual positivity for CK7 and CK20 as well as positivity for GATA-3 and Uroplakin helped in confirming a urothelial origin and excluded other metastatic carcinomas. The late presentation makes treatment of PUC difficult and no clear guidelines are available till date. Radical cystectomy is the first line treatment for PUC diagnosed on TURBT irrespective of muscle invasion.⁸ Both neoadjuvant and adjuvant treatment maybe considered in the management of these patients. The previous case reports have shown a complete response in locally advanced but nonmetastatic PUC (T4N0M0) to chemotherapy.⁹ However in a larger case series, an initial downstaging in a large majority of cases and a complete response in a few cases were followed by a rapid recurrence.³ Most patients with this tumor have a poor prognosis and an aggressive behavior and patients either die or have metastatic disease within two years of presentation according to some studies.¹⁰

To conclude, Plasmacytoid variant of urothelial carcinoma is a rare variant of urothelial carcinoma with an aggressive behavior and poor prognosis. An early diagnosis of PUC by cystoscopy and biopsy may aid in early and appropriate treatment in these patients. The role of immunohistochemistry in the diagnosis of PUC is pivotal and helps in differentiating it from other tumors with plasmacytoid morphology. It is necessary to identify this rare variant as more aggressive treatment maybe required in these patients.