

Transitional Cell Carcinoma of Cervix

Gazi Naseem Ahmed* and M.N. Baruah

North East Cancer Hospital and Research Institute, Amerigog, Jorabat, Guwahati, Assam, India

Keywords: Transitional cell carcinoma, Cervix, Cytokeratin 7, Cytokeratin 20.

Dear Sir,

Transitional carcinoma of the cervix is a rare neoplasm of recent description that probably represents a subgroup of squamous cell carcinoma of cervix.^[1,2] This tumor has a propensity for late metastasis and local recurrence, inspite of the fact that histologically it could be misinterpreted as CIN grade III with a papillary configuration or as a squamous cell papilloma.^[3,4]

A 53 years old lady presented in the OPD with a history of post menopausal bleeding and abdominal pain for the last 5 months. There was no significant past history. Ultrasonography of the abdomen showed a heterogeneous lesion of the cervix. Urinary bladder, ureters and renal pelvis appeared normal. On speculum examination an ulcerated lesion was noted in the anterior lip of cervix from which a punch biopsy was taken using a biopsy forceps.

Sections showed papillary growth invading into the underlying stroma and are lined by eight or more layers of oval to spindle, darkly stained cells arranged vertically similar to urothelial transitional cell carcinoma. Moderate pleomorphism and loss of polarity noted in these cells. Atypical mitotic figures are seen (Fig 1). Cytokeratin profile was CK7 positive and CK20 negative (Fig 2). A diagnosis of transitional cell carcinoma of cervix was made.

Transitional cell carcinoma of cervix is a rare neoplasm that probably represents a subgroup of squamous cell carcinoma of cervix.^[2,3] The cytologic characteristics of the tumor have not been published to date. Some authors think that transitional carcinoma of cervix is a metaplastic variant of squamous cell carcinoma of cervix. Support for this hypothesis is the presence of squamous and transitional areas in the same neoplasm, epidemiologic and risk factors of transitional carcinoma of cervix similar to those of

squamous cell carcinoma of cervix and causal relationship with the HPV 16 genome, found in 67% of cases of transitional carcinoma of cervix.^[2] This tumor occurs mainly in post menopausal females. However, the affected age group ranges from 34 to 81 years.^[3] In our case, age at presentation was 53 years. It often resembles transitional cell carcinoma of the urinary tract.^[3,4] It remains unclear whether papillary carcinomas of the cervix represents two clinicopathologically distinct groups of tumors (squamous and transitional) or if they reflect morphologic continuum within a single clinically homogenous entity. The Armed Forces Institute of Pathology fascicle uses the term “squamous” and “transitional” interchangeably to refer to these papillary carcinomas of cervix.^[4] In our case there was no squamous components. Our case showed papillary architecture with fibrovascular core and showed an “inverted” endophytic pattern, as reported by other authors as well.^[2,3] The cells formed cohesive groups in a multilayered fashion and had an oval or spindle shape with tapered ends. The nuclei were hyperchromatic, with coarse and medium sized granules that frequently displayed a wrinkled membrane, nuclear grooves which are similar to the features observed by Ortega – Gonzalez P et al.^[2] Microscopic features were similar to those originating in urinary bladder or ovary as noted by Albores – Saavedra J et al.^[5] Cytokeratin profile is similar to that of squamous cell carcinoma of cervix; positive for CK7, negative for CK 20.^[1,3] Similar findings were seen in our case. This profile differs from metastatic urothelial transitional cell carcinoma where both CK20 and CK 7 is positive.^[6]

To conclude, Transitional cell carcinoma is a rare neoplasm that probably represents a subgroup of squamous cell carcinoma of cervix and carries a similar prognostic outcome as that of squamous cell carcinoma of cervix. It is

*Corresponding author:

Dr Gazi Naseem Ahmed, North East Cancer Hospital and Research Institute, 11th Mile, Amerigog, Jorabat, Guwahati – 781023 Assam, India
Phone: +91 9854884861
E-mail: drgnahmed@gmail.com



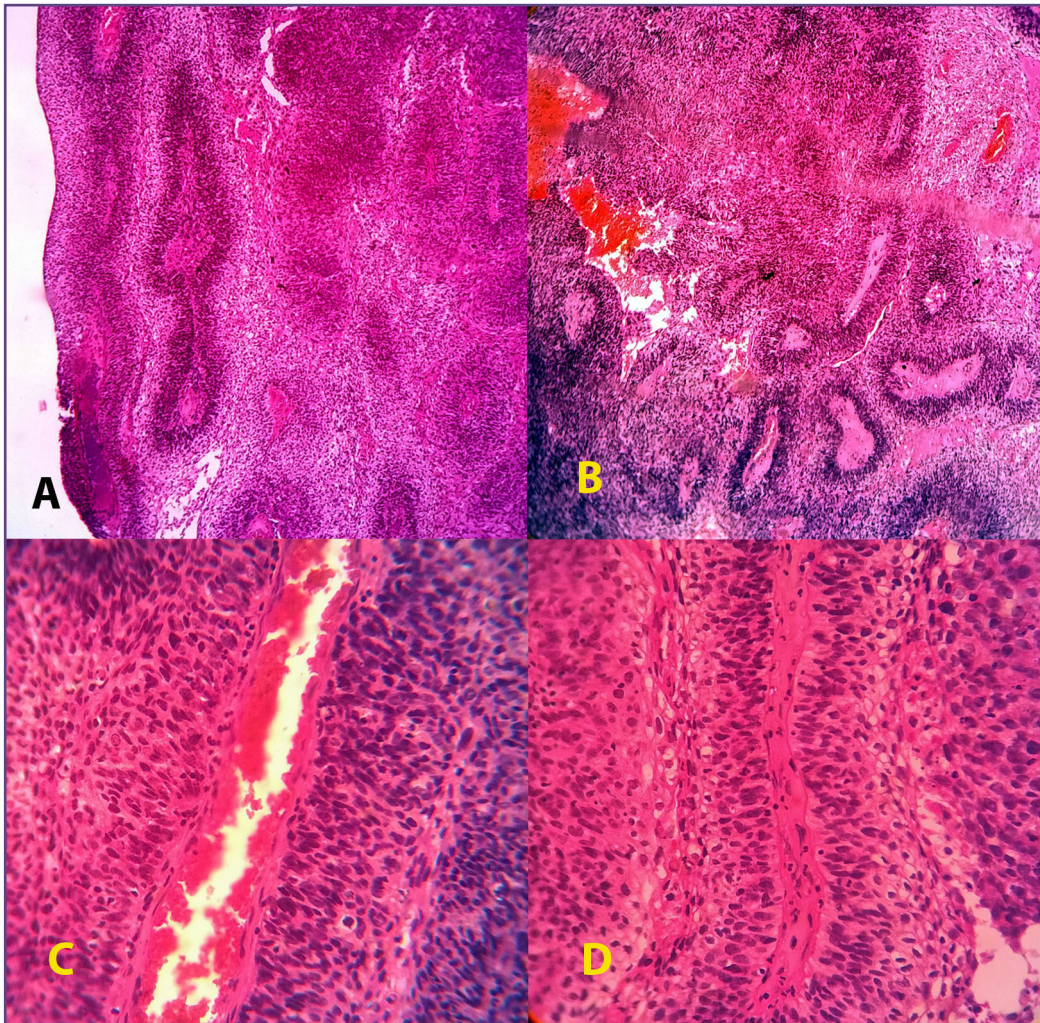


Fig. 1: Low and high powered views showing darkly stained oval to spindle malignant transitional cells arranged vertically with a fibrovascular core. Low powered views A,B - (H&E 100X), High powered views C,D - (H&E 400X).

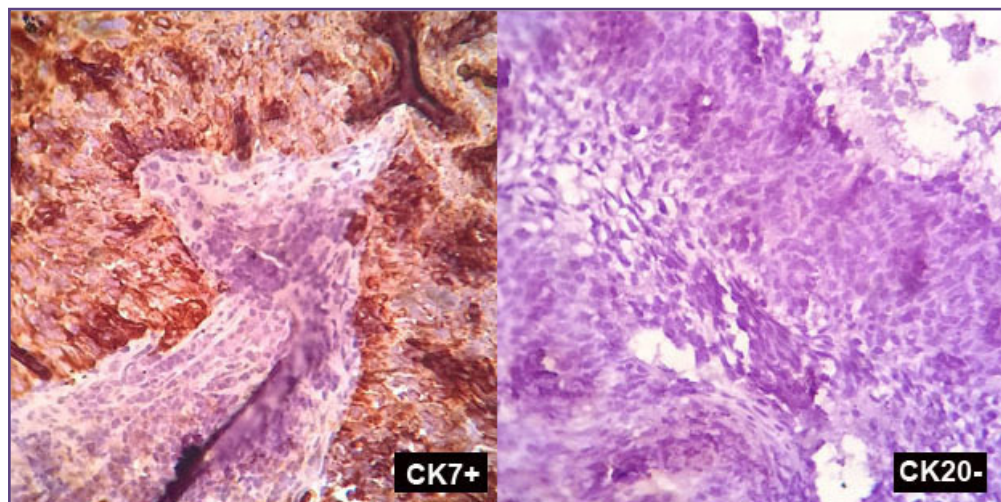


Fig. 2: Immunohistochemistry shows cytokeratin 7 positive and cytokeratin 20 negative transitional cells (400X).

important to recognize its pathologic features to establish prognostic differences from those of other types of non squamous cell malignancies of the cervix.

Acknowledgements

None

Funding

None

Competing Interests

None

Reference

1. Prasad KK, Devgan R, Kaur S, Bhatia AK. Transitional cell carcinoma of uterine cervix complicated by pyometra. *Indian J Pathol Microbiol.* 2004 Jan; 47(1): 71 – 3.
2. Ortega – Gonzalez P, Chanona – Vilchis J, Dominguez – Malagon H. Transitional cell carcinoma of the uterine cervix. A report of six cases with clinical, histologic and cytologic findings. *Acta Cytol.* 2002; 46(3): 585 – 90.
3. Kaur A, Singh J, Bansal R, Kaur R et al. Transitional cell carcinoma: A case report with clinical, histological and cytological findings. *J Clin Diagn Res.* 2013; 7(12): 2954 – 2955.
4. Anand M, Deshmukh SD, Gulati HK. Papillary squamotransitional cell carcinoma of the uterine cervix: A histomorphological and immunohistochemical study of nine cases. *Indian J Med Paediatr Oncol.* 2013; 34: 66-71.
5. Albores – Saavedra J, Young RH. Transitional cell neoplasms (carcinomas and inverted papillomas) of the uterine cervix. A report of five cases. *Am J Surg Pathol.* 1995 Oct; 19(10): 1138-45.
6. Jiang J, Ulbright TM, Younger C, Sanchez K, et al. Cytokeratin 7 and Cytokeratin 20 in Primary Urinary Bladder Carcinoma and Matched Lymph Node Metastasis. *Arch Pathol Lab Med.* 2001;125:921–923.