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LYMPHOEPITHELIOMA LIKE CARCINOMA OF URINARY BLADDER: A RARE CASE REPORT

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ABSTRACT

Urinary bladder neoplasm is the 10th most common cancer in the world, predominantly affecting males. Nowadays incidence of urinary bladder carcinoma in female has increased. It is a uncommon type carcinoma of urinary bladder. It resembles to non-keratinizing carcinoma of nasopharynx. This study report a case of 65 years old male presented with painless gross hematuria for 3 weeks. Patient was a known case of Meckel's diverticulum. Ultrasonography and cystoscopy showed a mass on lateral wall of urinary bladder measuring 3x3 cm . A radical cystectomy of the urinary bladder tumor was done. He was diagnosed as case of lymphoepithelioma like carcinoma of urinary bladder along with benign prostate hyperplasia and Meckel's diverticulum was made with stage 2. According to the WHO classification criteria, Lymphoepithelioma like carcinoma is a subtype of undifferentiated carcinomas. Immunohistochemical stains are helpful to differentiate Lymphoepithelioma from primary lymphoma of the bladder. Differentiation of LELCB from urothelial carcinoma is important, since it has better prognosis compared to pure urothelial carcinoma. It is important to diagnose this neoplasm for therapeutic as well as prognostic purpose.

KEY WORDS : Lymphoepithelioma, Benign prostate hyperplasia , Epstein-bar virus, p63.

INTRODUCTION

Bladder neoplasm is 10th most common carcinoma worldwide in 2020 with male predominance. With passage of time incidence of this carcinoma is increasing in woman. Lymphoepithelioma like carcinoma is an uncommon type of urinary bladder neoplasm. It morphologically similar to non keratinizing carcinoma of nasopharynx, around 90% cases of bladder cancer are histologically urothelial type. Zukerberg et al. studied Lymphoepithelioma-like carcinoma as uncommon type of infiltrating urothelial neoplasm for the first time in 1991[1]. On the basis of lymphoepithelial tissue component in the tumour LELC have been classified as : pure (100%), predominant (50%-99%) and focal (<50%) type .[2] The pure and predominant types have been reported with better prognosis than focal type (3). We report a case of 65 year male diagnosed as LELCB.

CASE REPORT

A 65 years old male was hospitalised with complain of gross haematuria for 3 weeks. Patient was a known case of Meckel's diverticulum. Ultrasound scan revealed a mass on left lateral wall of urinary bladder measuring 3x3 cm. No hydronephrosis and lymphadenopathy was seen. Ultrasonography also showed a tubular blind-ending structure arising from the ileal loops (Meckel's diverticulum).The cystoscopy revealed non papillary large solid tumor on lateral wall of urinary bladder .It also revealed a slender of urethra when it goes through prostate indicating a benign prostate hyperplasia. Abdominal and pelvic computed tomography scan showed a mass on lateral side of bladder . Patient underwent radical cystectomy. The resected specimen was send for histopathological examination. Grossly papillary growth measuring 2.8x2.5x1.5cm. Cut surface show gray-white solid area . After processing microscopic examination showed tumor cells was arranged in syncytial sheets and nest having highly pleomorphic nuclei (variable size nuclei) with prominent nucleoli and scant cytoplasm. Border of cell was ill defined, stroma is infiltrated with abundant chronic inflammatory cells comprising of predominantly lymphocyte,plasma cells and histiocytes (figure1). Lympho-vascular and muscle invasion along with perineural invasion also seen (figure 2, 3 & 4. We also received prostatic chips. Grossly multiple gray-white soft tissue piece measuring 3x6cm. Histologically prostate tissue showed both glandular

and stromal proliferation with cystically dilated glands lined by bilayered epithelium with inner layer of tall columnar epithelium and outer layer of low cuboidal epithelium having laminated eosinophilic concretion within the lumen of gland. The cells have abundant eosinophilic cytoplasm. Surrounding fibro-collagenous stroma with thick bundle of smooth muscle cells (figure 5). Meckel's diverticulum was mucosal invagination deep into muscularis propria along with intact architecture of intestinal wall (figure 6). Diagnosis of lymphoepithelioma like carcinoma of urinary bladder along with benign prostate hyperplasia and Meckel's diverticulum was made with stage 2.

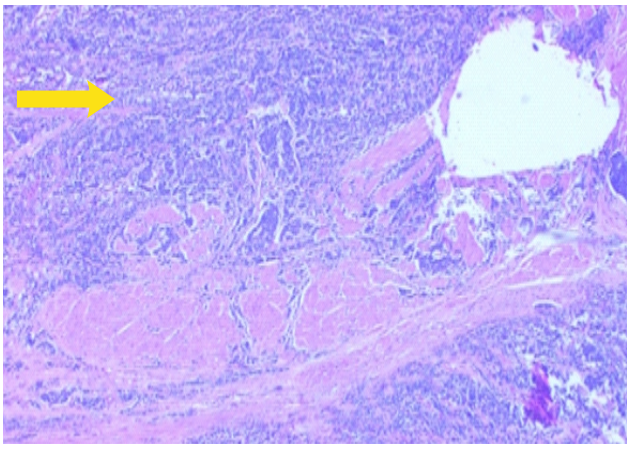

Fig. 1: Micrograph shows Urinary Bladder Carcinoma Lymphoepithelioma type: Syncytial sheets, nest of cells with highly Pleomorphic Nuclei and Prominent Nucleoli and scant Cytoplasm with ill defined Cell border, Admixed with Abundant Chronic Inflammatory Cells Comprising of Predominantly Lymphocyte, Plasma Cell and Histiocytes.

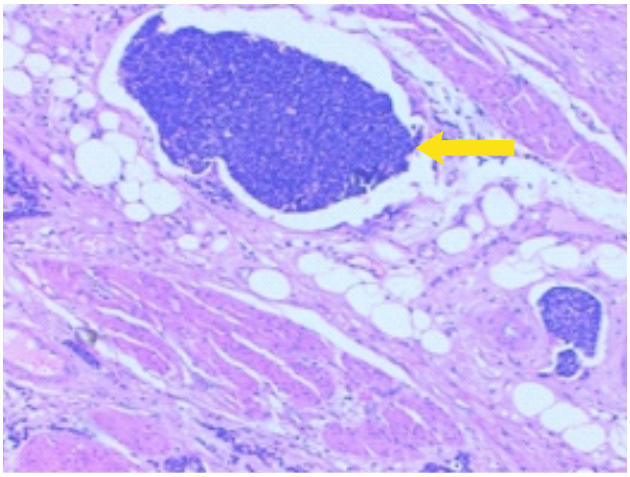

Fig. 2: Lymphovascular Invasion by Tumor

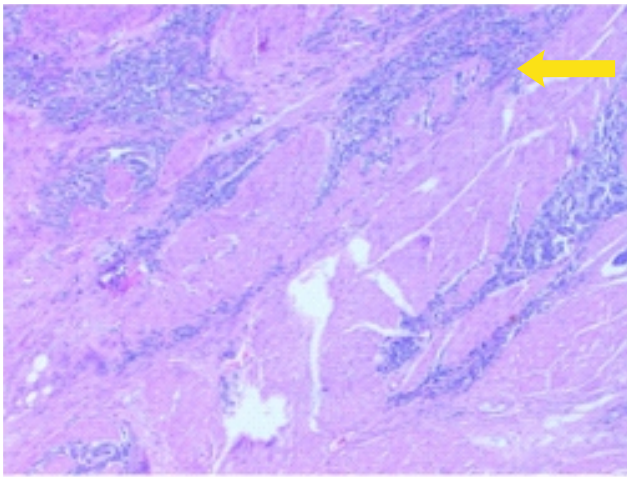

Fig. 3: Muscle Invasion by Tumor

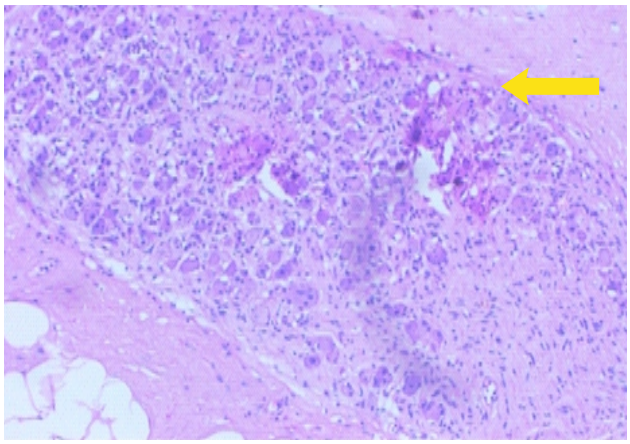

Fig. 4: Perineural Invasion in LELCB

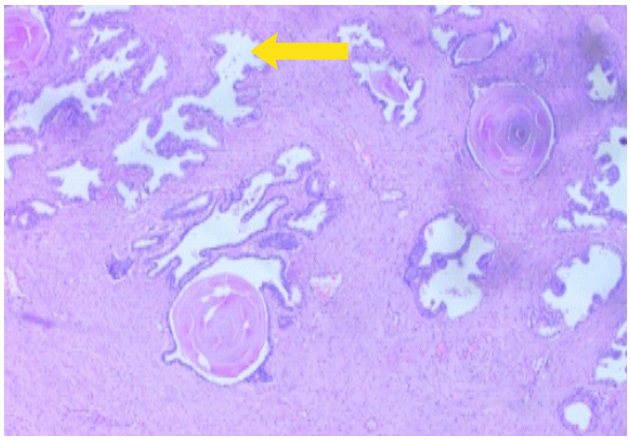

Fig. 5: Benign prostate hyperplasia: Both Glandular and Stromal Proliferation with Cystically Dilated Glands lined by Bilayered Epithelium with inner layer of tall Columnar Epithelium and outer layer of low Cuboidal Epithelium having laminated Eosinophilic Cytoplasm. Surrounding fibro-collagenous stroma with thick bundle of smooth Muscle Cells

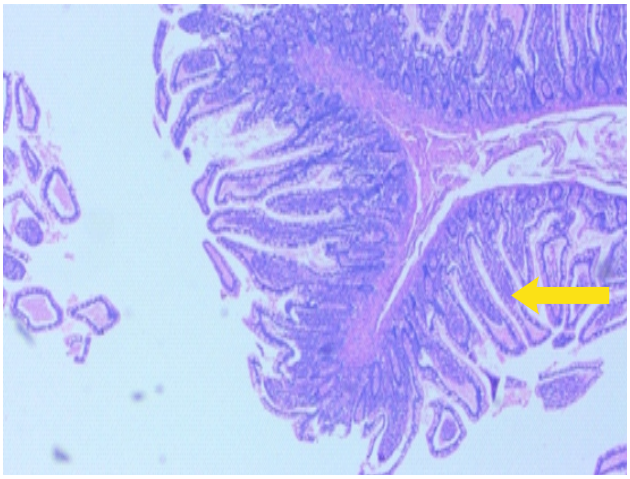

Fig. 6: Micrograph of Meckel's Diverticulum: Mucosal Invagination deep into Muscularis Propria along with Intact Architecture of Intestinal Wall.

DISCUSSION

Carcinoma urinary bladder - Lymphoepithelioma type is an uncommon neoplasm that mimic to nonkeratinizing carcinoma of nasopharynx. LELCB was first studied in the bladder by Zukerberg et al. in 1991[1].It is 0.4%- 1.3% of all bladder carcinoma and male are more effected than female (4-6). Most common complain of painless gross hematuria. It is seen that in most cases of lymphoepithelioma of nasopharynx shows association with EBV while this was negative in LELCB (7-8). Pathogenesis of this neoplasm also shows association with p53 abnormality (6).

Histologically tumour comprises syncytial sheets of highly pleomorphic round to spindle neoplastic cells. Small-cell neuroendocrine carcinoma, lymphoma and squamous cell carcinoma poorly differentiated of bladder are differential diagnosis of LELCB. Immunohistochemical stains are essential to distinguish the LELCB from the primary lymphoma of urinary bladder . Epithelial markers, panel of p63 and GATA3 and several cytokeratins (CK7, CK 8 and CK20), can be used for confirmation of epithelial origin of the tumor. Upto date 152 cases of LELCB have been reported. Most of the cases of LELC was found in T2 -T3 stage (5). Our case was in T2 stage. Amin et al. categorized the tumour as pure, predominant and focal type (2). Transurethral resection of bladder tumour, partial cystectomy and radical cystectomy may used in treatment. Systemic chemotherapy, radiotherapy may also helpful. A variety of chemotherapy regimen include methotrexate, vinblastine, gemcitabine and cisplatin etc. In our case Patient was given on cisplatin based chemotherapy .

By using UroVysion fluorescence in situ hybridization Williamson et al , found p63 expression and p53 molecular abnormality, proposed to be same pathogenesis of LELCs and conventional urothelial carcinoma (9). Combination of transurethral resection of bladder tumor and adjuvant chemotherapy is likely to efficacious against pure or predominant LELCB (10).

LELCB have a better prognosis than conventional urothelial carcinoma.

Discrimination between LELCB and pure urothelial carcinoma is important for better prognosis.

CONCLUSION

LELCB is a uncommon type of neoplasia. Many theories were proposed for pathogenesis of this carcinoma but the exact pathology is not clear. The standard treatment of it is not made but resection, chemotherapy may be helpful. LELCB have a better prognosis than conventional urothelial carcinoma. Diagnosis is important for therapeutic as well as prognostic purposes.

REFERENCES

1. Chaker K, Sellami A, Ouanes Y, et al. About a case of lymphoepithelioma-like carcinoma of the bladder. Urol Case Rep. 2018; 18: 48-49.
2. Amin MB, Ro JY, Lee KM, et al. Lymphoepithelioma-like carcinoma of the urinary bladder. Am J Surg Pathol. 1994; 18(5): 466-473.
3. Nagai T, Naiki T, Kawai N, et al. Pure lymphoepithelioma-like carcinoma originating from the urinary bladder. Case Rep Oncol. 2016; 9(1): 188-194.
4. Mori K, Ando T, Nomura T, et al. Lymphoepithelioma-like carcinoma of the bladder: a case report and review of the literature. Case Rep Urol. 2013; 2013: 356576.
5. Yang AW, Pooli A, Lele SM, et al. Lymphoepithelioma-like, a variant of urothelial carcinoma of the urinary bladder: a case report and systematic review for optimal treatment modality for disease-free survival. BMC Urol. 2017; 17(1): 48-59.
6. Izquierdo-García FM, García-Díez F, Fernández I, et al. Lymphoepithelioma-like carcinoma of the bladder: three cases with clinicopathological and p53 protein expression study. Virchows Arch. 2004; 444(5): 420-425.
7. Tamas EF, Nielsen ME, Schoenberg MP, et al. Lymphoepithelioma-like carcinoma of the urinary tract: a clinicopathological study of 30 pure and mixed cases. Mod Pathol. 2007; 20(8): 828–34.

8. Gulley ML, Amin MB, Nicholls JM, et al. Epstein Barr virus is detected in undifferentiated nasopharyngeal carcinoma but not in lymphoepithelioma-like carcinoma of the urinary bladder. Hum Pathol. 1995;26:1207-e1214.
9. Williamson SR, Zhang S, Lopez-Beltran A, et al. Lymphoepithelioma-like carcinoma of the urinary bladder: clinicopathologic, immunohistochemical, and molecular features. Am J Surg Pathol. 2011; 35(4): 474-483.
10. Yoshino T, Ohara S, Moriyama H. Lymphoepithelioma like carcinoma of the urinary bladder: A case report and review of the literature. BMC Research Notes. 2014; 7(1): 55-61.

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