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RESEARCH ARTICLE

A SQUAMOUS CELL CARCINOMA OF THE UTERINE CERVIX RECURRING IN THE FORM OF AN ISOLATED BLADDER METASTASIS: A CASE REPORT AND REVIEW OF THE LITERATURE

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Abstract

Bladder cancer is the second most common urological cancer after prostate cancer, and bladder metastases are rare. We report the case of a 42-year-old female patient who underwent surgical treatment for cervical cancer 5 years ago and presented with a recurrence of her disease in the form of an isolated bladder tumor resembling primary bladder cancer. The diagnosis was confirmed by human papillomavirus (HPV) genotyping performed on the biopsy sample of the bladder tumor. The patient was treated with chemotherapy similar to that used for cervical cancer, with a favorable clinical and biological response.

Introduction:-

Cervical cancer is the second most common cancer in women worldwide, after breast cancer. It is primarily linked to HPV infection in 89% of cases [1].Bladder metastases are rare, accounting for only 2.3% of all malignant bladder tumors [2].HPV genotyping can be useful for distinguishing between a primary bladder tumor and metastases from a cervical origin [1].We present a case of a patient who experienced a metastatic recurrence of cervical cancer 5 years after completing treatment, in the form of an isolated bladder metastasis. This recurrence was diagnosed following total hematuria accompanied by urinary irritative symptoms such as pollakiuria. Additionally, we will discuss the clinical characteristics of this particular case and the diagnostic methods and challenges associated with this metastasis.

Case report

A 42-year-old married woman with no children, non-smoker, has been followed for five years for a micro-invasive squamous cell carcinoma of the cervix, classified as stage IA1 according to FIGO (International Federation of Gynecology and Obstetrics) staging, with normal staging investigations. The patient opted for uterus-conserving treatment and underwent conization (clear margins and no lymphatic emboli).After regular follow-up for five years, the patient developed urinary symptoms including total hematuria and irritative urinary signs such as pollakiuria, in the context of unspecified weight loss.Thoraco-abdomino-pelvic CT scan showed an irregular, asymmetric, circumferential bladder wall thickening, heterogeneously enhancing after contrast injection, measuring 27 mm in thickness (Figure 1).Cystoscopic examination revealed a bulbous thickening on the right lateral wall and at the bladder dome (Figure 2).Bladder biopsy with histopathological analysis confirmed a moderately differentiated keratinizing squamous cell carcinoma invading the chorion and muscle layer (Figure 3). Additional immunohistochemical studies showed strong positivity for p16 protein, consistent with a cervical origin. Therefore, the diagnosis of bladder metastasis from squamous cell carcinoma of the cervix was established, and the patient

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underwent chemotherapy, resulting in resolution of bladder symptoms at three months, with normal cystoscopy at six months. The patient maintained good overall health.

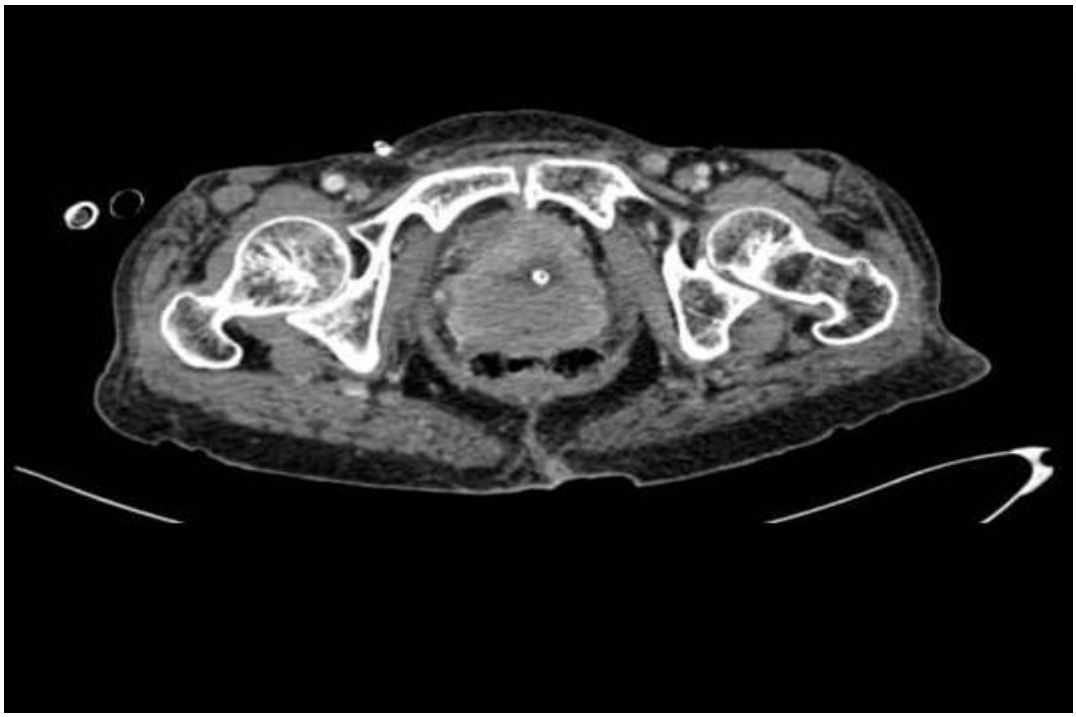

Figure 1:- Axial CT scan section showing a bladder tumor mass.

Figure 2:- Cystoscopy showing a bulbous thickening on the right lateral wall and at the bladder dome.

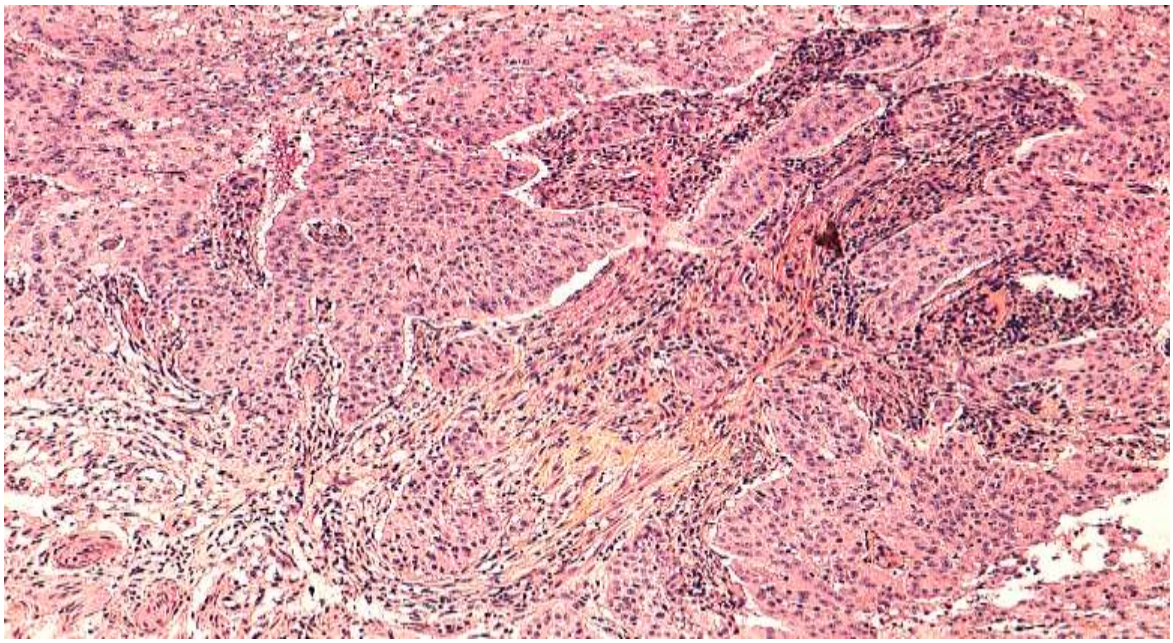

Fig3:- (H&E x 100) Moderately differentiated SCC;The malignant cells are large with abundant eosinophilic cytoplasm and a large vesicular, nucleus.

Discussion:-

Bladder metastases are uncommon, comprising only 2.3% of all malignant bladder tumors. They can be categorized into two types of spread: contiguous extension, primarily from the colon, prostate, rectum, and cervix (in descending order), as well as distant extension, notably from breast, melanoma, and stomach cancers [2]. Clinical presentation of bladder metastases typically includes total hematuria and urinary irritative symptoms such as pollakiuria [3,4], a trend confirmed by our case presentation.Due to its exceptional specificity and widespread availability at relatively low cost, CT scanning is the preferred modality to confirm bladder involvement [5,6]. In our case, the relative rarity of primary squamous cell carcinoma of the bladder and its association with a history of squamous cell carcinoma of the cervix posed challenges in determining the primary tumor.P16 serves as a valuable marker to distinguish squamous cell carcinomas of the cervix from those of the bladder, as consistent overexpression of p16 is often observed in HPV-associated cervical cancers. The p16 INK4a protein is activated in basal cells of cervical squamous epithelium in response to viral oncogenes E6 and E7 during high-risk HPV infection [7,8]. Thus, investigating this protein is crucial to differentiate primary bladder carcinoma from metastasis originating from the cervix. In our patient's case, p16 overexpression testing yielded positive results.The etiology of exclusive bladder tumor recurrences and associated predisposing factors are complex, rare, and not fully understood.

Conclusion:-

Bladder metastases are infrequent. When suspecting such metastases, performing cystoscopy with biopsy followed by immunohistochemical analysis of the specimen is recommended. This approach is essential to distinguish metastasis from primary bladder cancer, guiding appropriate patient management.

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