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Case Report

Diagnostic Dilemma in Endocervical Adenocarcinoma – A Case Report

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Abstract

Adenocarcinoma of endometrium and uterine cervix may demonstrate significant morphological overlap. The distinction between these two entities prior to surgical resection is clinically significant as assigning the primary site dictates treatment and prognosis. The diagnostic dilemma is approached by a panel application of immunohistochemical stains , traditionally composed of CEA , Vimentin, ER, PR, p16. Most cases are successfully managed by this panel, however,in difficult cases additional tools may needed to suggest a more definitive diagnosis. But in respect to our country, considering the socioeconomic condition and affordability as well as availability it may not be always possible to apply additional tools, thats why traditional panel is usually applied in diagnosis.

Key words: *Endocervical adenocarcinoma, Endometrial carcinoma, Immunohistochemical stains*

Introduction

In endometrial adenocarcinoma and cervical adenocarcinoma, both entities demonstrate variable degrees of glandular differentiation,with glands lined by columnar epithelium, round to ovoid nuclei, mildly coarse chromatin and intracytoplasmic mucin.Squamous metaplasia, conventionally thought to support endometrial origin in glandular proliferations, can also be encountered in endocervical adenocarcinomas.[1]

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Endometrial and endocervical carcinomas are different in preoperative and surgical management also in post operative adjuvant therapy and have different prognostic value.

Usually ,this diagnostic dilemma is approached by the application of a panel of immunohistochemical stains ,which, depending on the case at hand,may consist of a traditional expanded panel or focused “lean” group of markers. Carcinoembryonic antigen (CEA) and p16 are markers of endocervical origin, whereas vimentin, estrogen receptor (ER) and progesterone receptor (PR) favor endometrial origin.[1]

However, concomitant endometrial and endocervical adenocarcinoma as primary malignant tumour are rare.[3] So the diagnosis should be either on favour of endocervical or of endometrial adenocarcinoma.

Case description

A 40 years old multiparous lady with history of repeated abortion presented us at OPD with the complaints of per vaginal watery foul smelling discharge for 2 years and irregular per vaginal bleeding for last several months. With these complaints she had visited local health complex and was advised VIA and VIA was positive ,then she was referred to nearer colposcopy centre where biopsy was take and the result was adenocarcinoma in situ. Then she came to BMU , Department of Gynaecological Oncology with the report.

She was normotensive ,non diabetic, had history of taking OCP for 5 years as contraceptive method.Her vitals were normal,we found no significant per abdominal or other systemic findings. On per

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speculum examination,vulva and vagina was apparently healthy but there was an irregular ulcerative lesion about (1×0.5 cm) in lower lip of cervix. On bimanual examination an ulcerative lesion about 1×0.5 cm in lower lip of cervix,uterus was bulky , retroverted,mobile ,and all fornices were free. On rectovaginal examination ,both sided parametria were free and on per rectal examination rectal mucosa was free .

Clinically diagnosed as carcinoma cervix stage IB1, where biopsy report was adenocarcinoma in situ.

Then at BMU colposcopy clinic LEEP was performed and immunohistochemistry was done as report was Adenocarcinoma in situ. Immunohistochemistry report came out Adenocarcinoma of cervix. Then she was advised for admission after 6 weeks of LEEP for Radical Hysterectomy.

Case management

After admission an MRI of whole abdomen with pelvis with cervical protocol was done where report came out possibility of endometrial carcinoma. Report was reviewed and then came out degenerative fibroid .

Radical Hysterectomy with keeping facilities of frozen section was planned.

During Per operative findings,uterus was about 12 weeks size, ,on cut section of uterus- no visible growth found except coconut water like hydrometra and an ill defined indurated lesion on cervix. Per operative frozen section report came uterine wall positive for malignancy with less than 50 percent myometrial invasion!

Radical hysterectomy with bilateral salpingoophorectomy with bilateral pelvic lymphadenectomy were performed. Final histopathology report came as Endometrioid Endometrial Carcinoma, grade I

Then immunohistochemistry again performed , report of immunohistochemistry was

" Compatible with endocervical adenocarcinoma "

Uterine wall: ER - Negative

PR- Negative

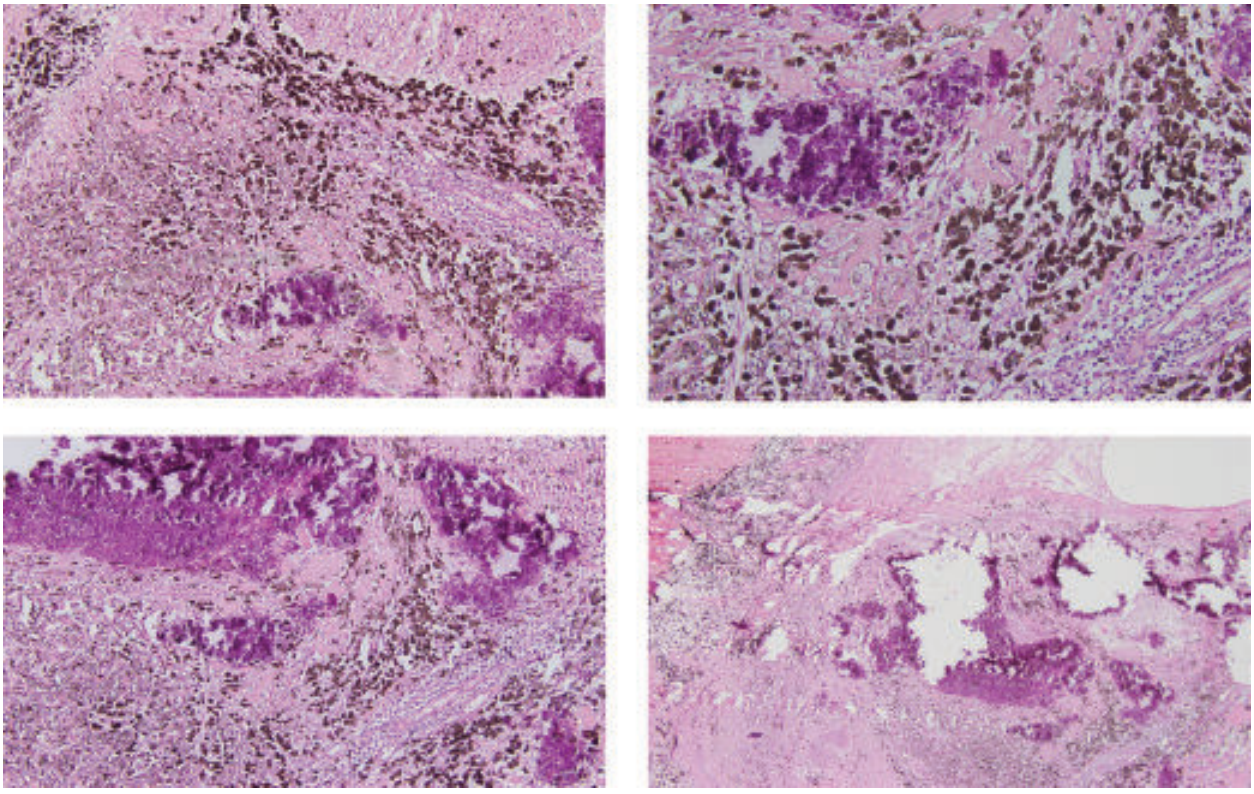

Figure 1: *Histopathological slide lower uterine segment*

p53- <5 % in tumour cells

Cervical tissue(from previous immunohistochemistry):

ER - Negative

PR - Negative

p16- Positive

CEA - Positive

Vimentin - Negative

The PAX8, an additional panel was not done in this case, it it was already conclusive in dilemma solution about diagnosis in this case.

So it's on favour of adenocarcinoma of cervix as primary malignancy.

Discussion

Most cases in diagnostic dilemma in adenocarcinoma of endometrium and uterine cervix are managed with above mentioned panel, however ,in difficult cases additional tools are needed to suggest a more definitive diagnosisThe addition of PAX8 to the traditional panel increases PPV 85.71% to 100 % .[1]

PAX8 is expressed in the majority of benign, premalignant and malignant endocervical glandular lesions,so usefulness is limited in differentiation of endocervical from endometrial lesions .t

Immunostaining pattern that might identify a site of origin with more accuracy than hematoxylin and eosin evaluation alone is the combination of high VIM and ER scores in an endomtrioid carcinoma, suggesting with about 95% accuracy in this series as an endometrial origin of tumour in this case which is negative so it is for endocervical adenocarcinoma.

Carcinoembryonic antigen (CEA) and Vimentin have traditionally been used for this distinction in endocervical and endometrial carcinoma but the most useful immunohistochemical markers are p16 and ER/ PR (estrogen and progesterone receptor) currently recommended. (6-9)

Prognostically, the malignancies also differ ; while low-grade endometrial cancers tend to have a good prognosis (5 years survival rate of about 95%)t . Endocervical adenocarcinomas carry a poor prognosis at advanced stage (5 years survival rate of about 84%).[1]p

To conclude, this case is discussed as the most common diagnostic dilemma in gynaecologic pathology includes the distinction between endometrial and endocervical adenocarcinoma. It is demonstrated that immunohistochemistry is a useful ancillary technique for achieving an accurate diagnosis of uterine neoplasm and the distinction of these neoplasms is very monumental.

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Author Contributions

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This study did not receive any funding.

Conflict of interest

The authors have no conflict of interest to declare.

Ethical Approval

The study being a case report does not have ethical approval from the institutional review board, but the patient and her guardian gave consent for the photo and reporting.

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Declaration of Patients consent:

With the consent of the patient, all her images and other clinical information are obtained for this case report concealing her identity.

References

1. Hernandez-Caballero AI, Vierkoetter KR, Ahn HJ, Shimizu D, Terada K. Novel immuno-histochemical markers in the differential diagnosis of endocervical and endometrial adenocarcinoma: The added benefit of CAIX and PAX8. Gynecologic Oncology Reports. 2020 Aug 1;33:100614. DOI: https://doi.org/10.1016/j.gore.2020.100614
2. Hirschowitz L, Sen C, Murdoch J. Primary endometrioid adenocarcinoma of the cervix with widespread squamous metaplasia–a potential diagnostic pitfall. Diagnostic pathology. 2007 Dec;2:1-4. DOI: https://doi.org/ 10.1186/1746-1596-2-40
3. Xu M, Zhou F, Huang L. Concomitant endometrial and cervical adenocarcinoma: A case report and

literature review. Medicine. 2018 Jan 1;97(1):e9596. DOI: https://doi.org/10.1097/MD.0000000000009596

4. Gottwald L, Pluta P, Piekarski J, Spych M, Hendzel K, Topczewska-Tylinska K. Long-term survival of endometrioid endometrial cancer patients. Arch Med Sci 6: 937–944. Link: https://goo. gl/jtrJRX. 2010. DOI: https://doi.org/10.5114/aoms.2010.19305
5. International journal of Gynaecological Pathology 21(3):p217-223,July 2002
6. Staebler A, Sherman ME, Zaino RJ, Ronnett BM. Hormone receptor immunohistochemistry and human papillomavirus in situ hybridization are useful for distinguishing endocervical and endometrial adenocarcinomas. The American journal of surgical pathology. 2002 Aug 1;26(8):998-1006. DOI: https://doi.org/10.1097/00000478-200208000-00004
7. Ansari-Lari MA, Staebler A, Zaino RJ, Shah KV, Ronnett BM. Distinction of endocervical and endometrial adenocarcinomas: immunohistochemical p16 expression correlated with human papillomavirus (HPV) DNA detection. The American journal of surgical pathology. 2004 Feb 1;28(2):160-7. DOI: https://doi.org/10.1097/00000478-200402000-00002
8. Kong CS, Beck AH, Longacre TA. A panel of 3 markers including p16, ProExC, or HPV ISH is optimal for distinguishing between primary endometrial and endocervical adenocarcinomas. The American journal of surgical pathology. 2010 Jul 1;34(7):915-26. DOI: https://doi.org/10.1097/PAS.0b013e3181e3291e
9. Yemelyanova A, Ji H, Shih IM, Wang TL, Ronnett BM. Utility of p16 expression for distinction of uterine serous carcinomas from endometrial endometrioid and endocervical adenocarcinomas: immunohistochemical analysis of 201 cases. The American journal of surgical pathology. 2009 Oct 1;33(10):1504-14. DOI: https://doi.org/10.1097/PAS.0b013e3181ac35f5
10. Takeuchi S. Biology and treatment of cervical adenocarcinoma. Chinese Journal of Cancer Research. 2016 Apr;28(2):254. DOI: https://doi.org/10.21147/j.issn.1000-9604.2016.02.11