



Clear-cell carcinoma of the uterine cervix: report of two cases including a patient with Lynch Syndrome

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Background

- ❑ Clear cell carcinoma (CCC) of the uterine cervix is a rare, HPV-independent endocervical adenocarcinoma often associated with poor clinical outcomes.
- ❑ Lynch syndrome (LS) is primarily linked to colorectal and endometrial carcinomas, and its association with cervical carcinoma is rare and not well established¹.
- ❑ Only isolated cases of cervical CCC in known LS have been reported². We present two cases of cervical CCC, including one occurring in a patient with known LS.

Clinicopathological Findings

Case	Age (yrs)	Known Lynch Syndrome	Presentation	Diagnosis on biopsy / LLETZ	Immuno-histochemistry	Molecular Findings	FIGO stage on radical hysterectomy	Treatment & Follow-Up
1	39	Yes	Cervical mass	LLETZ: clear cell carcinoma	ER +ve (3/8) PR – ve (0/8) Napsin A +ve (focal) P504s +ve (focal)	MMR (IHC): deficient HR-HPV DNA: not assessed POLE, TP53: not detected	IIIC1 (lymph node metastasis)	Adjuvant chemo-radiotherapy Disease free after 2 years
2	51	No	Peri-menopausal bleeding	Biopsy: clear cell carcinoma	ER +ve (6/8) PR -ve (0/8) Napsin A +ve P504s +ve (focal)	MMR (IHC): proficient HR-HPV DNA: not detected POLE, TP53: not detected	IIIC2 (lymph node metastasis)	Adjuvant chemo-radiotherapy Disease free after 2 years

Gross and Microphotographs

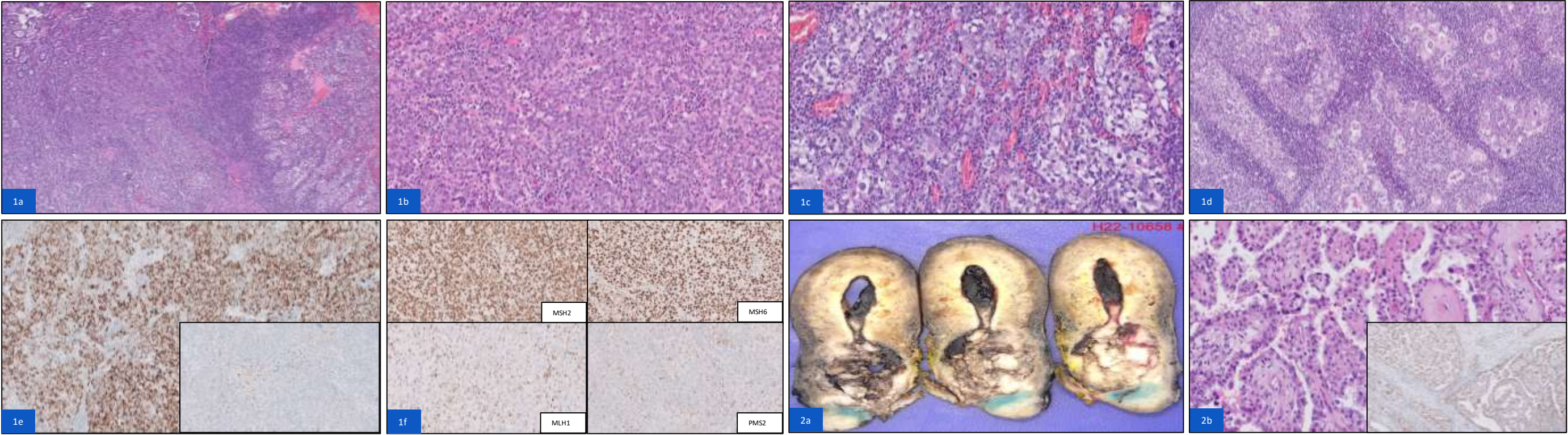


Figure 1 (Case 1): (1a) low power- solid and glandular component. (1b) high power- solid component. (1c) high power- clear cell component. (1d) lymph node involvement. (1e) Napsin A positive, inset p504s focal positive. (1f) MMR IHC - MSH2 and MSH6 retained; MLH1 and PMS2 lost.
Figure. 2. (Case 2): (2a) Gross- Hysterectomy slice showing tumour limited to uterine cervix. (2b) high power- clear cell component, inset Napsin A positive.

Discussion

- ❑ Occasional small case series of endocervical carcinomas, including CCC have been investigated, for their mismatch repair (MMR) status. MMR deficiency were seen in 5/16 CCC cases³; 2/12 cases⁴; and 2/6 cases⁵. However, none of these patients were known to have LS.
- ❑ One of our case with known LS was MMR deficient, while the other with no history of LS was MMR proficient.

Conclusion

- ❑ Pathologists should be aware of rare occurrence of clear cell carcinoma in the cervix to avoid diagnostic pitfalls and to facilitate appropriate clinical management.
- ❑ Routine MMR testing in all endocervical adenocarcinoma cases remains debateable.
- ❑ Where resources permit, MMR testing may be considered in HPV-independent tumours including CCC, to exclude the possibility of Lynch syndrome.

References

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