CORDED & HYALINIZED ENDOMETRIOID CARCINOMA OF UTERINE CORPUS

REPORT OF THREE CASES HIGHLIGHTING A RARE MORPHOLOGICAL VARIANT

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CHECK for CHEC

BACKGROUND

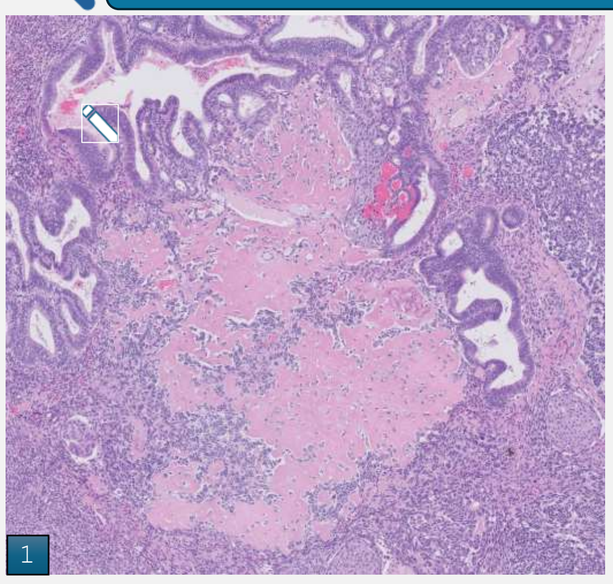
- Corded and hyalinized endometrioid carcinoma (CHEC): uncommon variant of endometrial endometrioid carcinoma (EEC), with only about 113 reported cases.[1]
- We present 3 cases of CHEC, including a unique association with pilomatrix-like high grade endometrioid carcinoma (PiMHEC) and leiomyosarcoma (this combination has not been reported in literature).

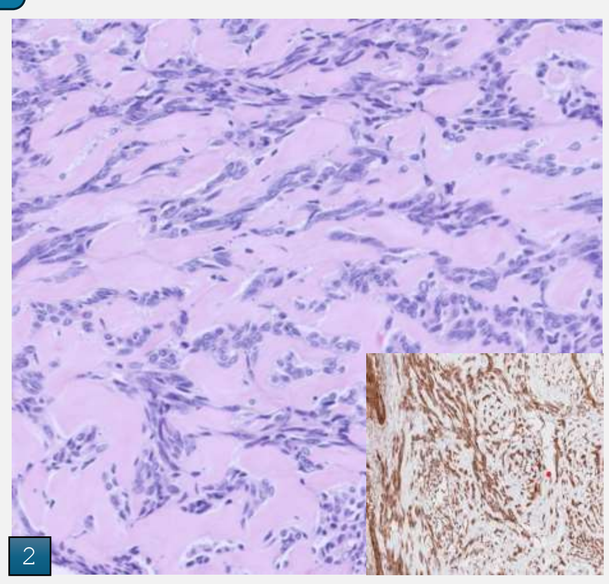
CLINICO-PATHOLOGICAL FINDINGS

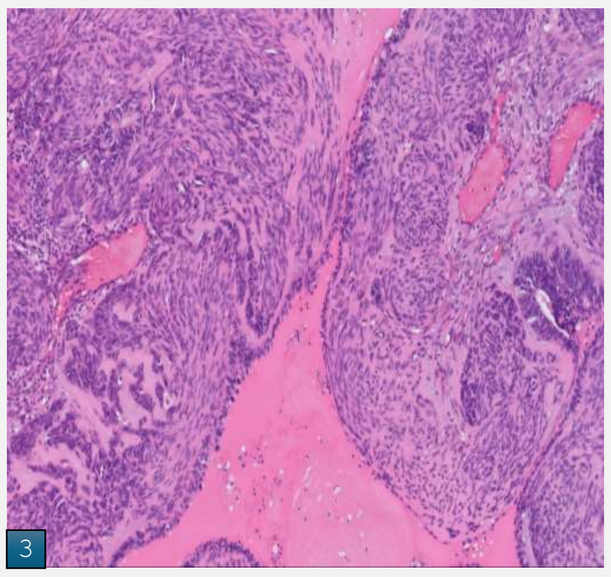
Case	Age (yrs)	Tumour size	FIGO stage	Squamous/ morular diff.	Stromal changes	LVSI	Immunohistochemistry	Molecular studies	Follow up status
1	50	40 mm	IIIA (ovarian metastasis)	Present	Chondroid	Present	AE1/3: negative ER: focal positive Beta catenin: positive (nuclear) P53: wild type	MMR (IHC): proficient POLE: not assessed CTNNB1: not assessed	Disease free (8 months)
2	36	74 mm	IIIA (ovarian metastasis)	Present	Myxoid	Absent	MNF16: negative ER: negative Beta catenin: positive (nuclear) P53: wild type	MMR (IHC): proficient POLE: not assessed CTNNB1: not assessed	Disease free (8 months)
3*	77	52mm	IB	Present	Myxoid	Present	MNF16: negative ER: negative Beta catenin: positive (nuclear) P53: wild type	MMR (IHC): deficient POLE: not detected CTNNB1/ARID1A/PTEN/ SMARCB1: positive	Died of metastasis (within 13 months)

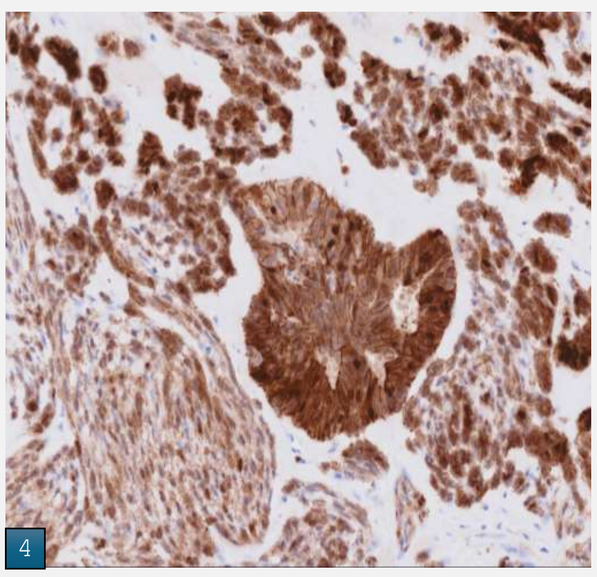
* CHEC associated with pilomatrix-like high grade endometrioid carcinoma (PiMHEC) and leiomyosarcoma

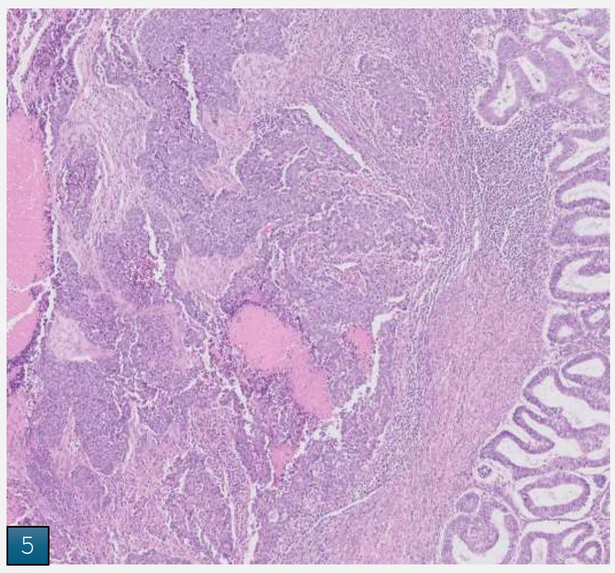
MICROIMAGES

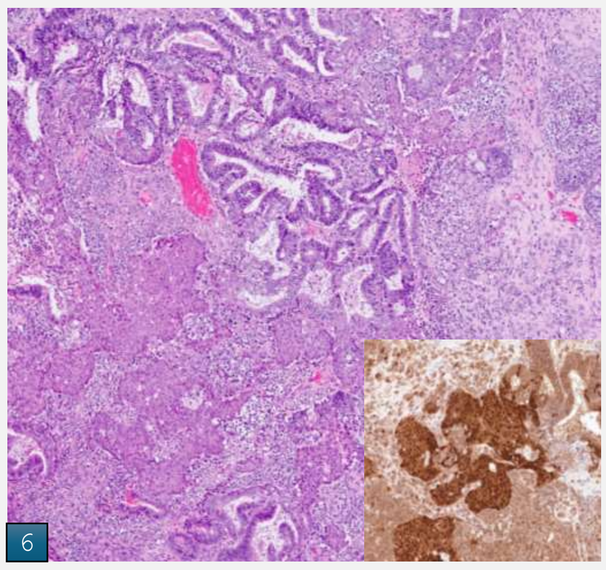


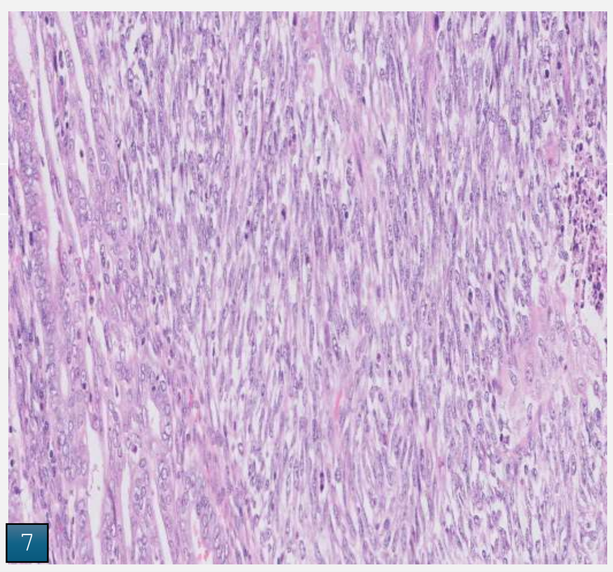


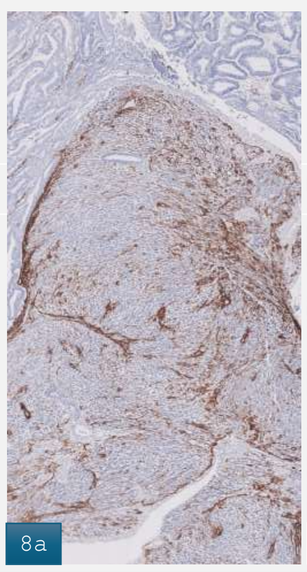


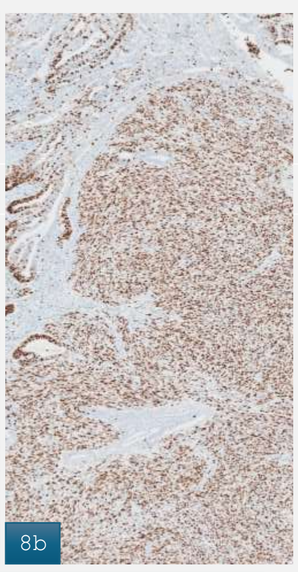












Figures: 1 (case 1): conventional EEC with areas of CHEC, 2: corded growth of bland spindled cells in background of hyalinized matrix (inset: beta catenin nuclear positivity, 3 (case 2): ovarian metastasis with predominantly spindled areas, focal CHEC and glandular foci, 4: Beta catenin positivity in ovarian metastasis, 5 (case 3): PiMHEC with adjacent low grade EEC, 6: PiMHEC, low grade EEC and CHEC (inset: beta catenin- PiMHEC intense nuclear, CHEC moderate nuclear and membranous positivity in EEC), 7: low grade EEC and leiomyosarcoma component showing SMA positivity (8a) and high ki67 (8b)

DISCUSSION

- Diagnostic pitfall for pathologists: CHEC'S biphasic appearance mimics carcinosarcoma- its main differential.[1,2]
- Clinical behaviour: Prototypical CHEC is associated with good clinical outcome.[3] Our cohort saw 2 pure CHEC cases with metastasis/higher stage at presentation. However, follow up period is currently too short to predict long term outcome.
- Molecular features: CHEC universally harbours CTNNB1 mutation/nuclear Beta catenin positivity.[3] Occasional cases with high grade morphology/aggressive behaviour[3] often show MMR deficiency or p53 abnormal expression.[4]

TAKE HOME MESSAGE

- CHECK for CHEC- "Pathologists should be aware to avoid diagnostic pitfalls".
- Harbours CTNNB1 mutation/Beta catenin nuclear positivity.
- Usually good clinical outcome, may present with higher stage/exhibit aggressive behaviour.

RECOMMENDATION

- Further studies with larger cohort may help improve prediction of outcome for this uncommon entity.

Scan for References

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