

MESONEPHRIC-LIKE ENDOMETRIAL ADENOCARCINOMA: AN UNUSUAL EXAMPLE OF LATE CLINICAL RECURRENCE

Dr Mary Ferrier, Dr Holly Buist, Dr Shreya Raman
Royal Victoria Infirmary (RVI), Newcastle upon Tyne, UK

CLINICAL DATA

An 87-year-old woman presented as an emergency with a massive left sided pleural effusion. She had a past medical history of a FIGO Grade 1 endometrioid endometrial adenocarcinoma, FIGO stage 1C (outer half myometrial invasion), treated with hysterectomy in 2005. She declined adjuvant radiotherapy and had been followed up by clinical oncology before discharge in 2010.

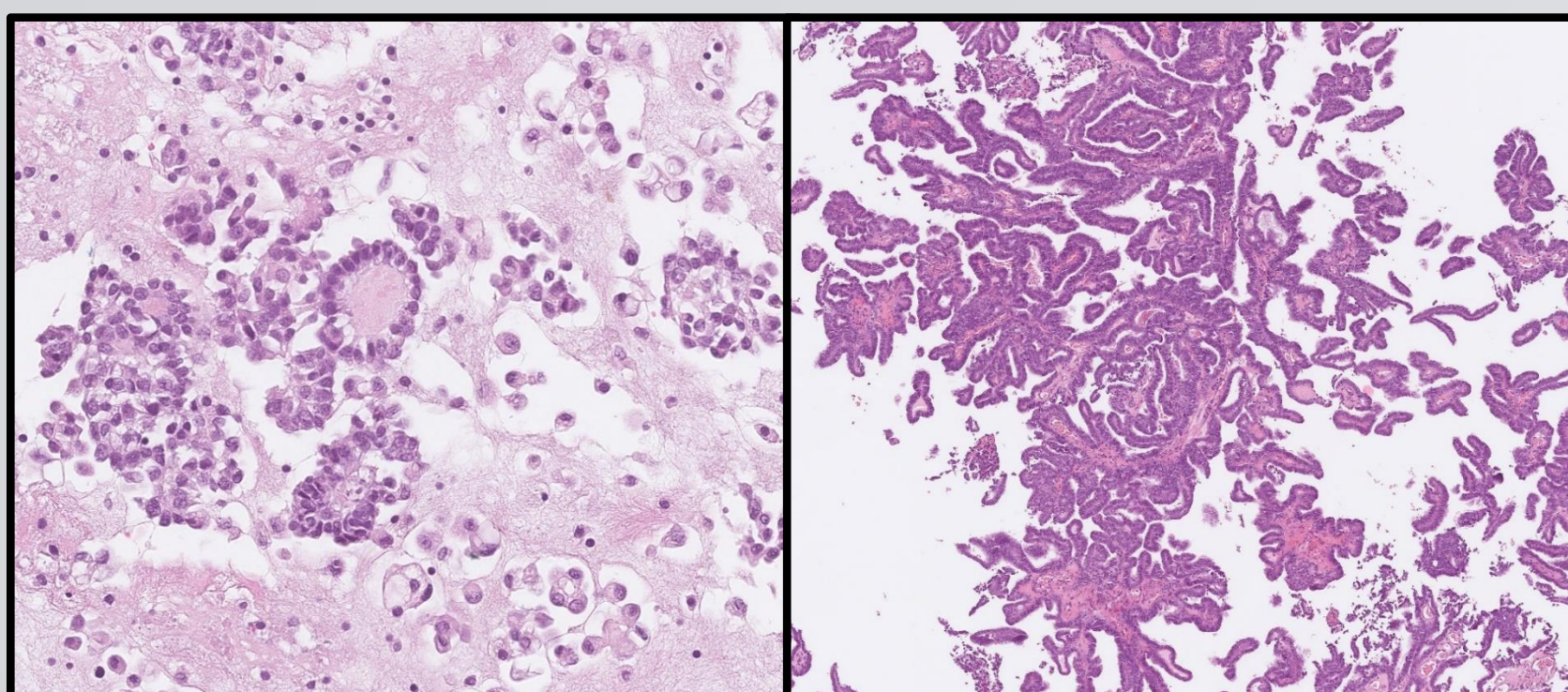
HISTO/CYTOPATHOLOGY

The pleural fluid cytology was referred from a regional hospital to the RVI with a diagnosis of papillary thyroid carcinoma and a request for thyroglobulin immunocytochemistry. The specimen contained papillaroid and microacinar groups of malignant epithelial cells, consistent with metastatic adenocarcinoma. The nuclei had granular chromatin with anisonucleosis and some nuclear grooves. Occasional cells showed higher grade nuclear atypia including prominent, large nucleoli and coarse chromatin.

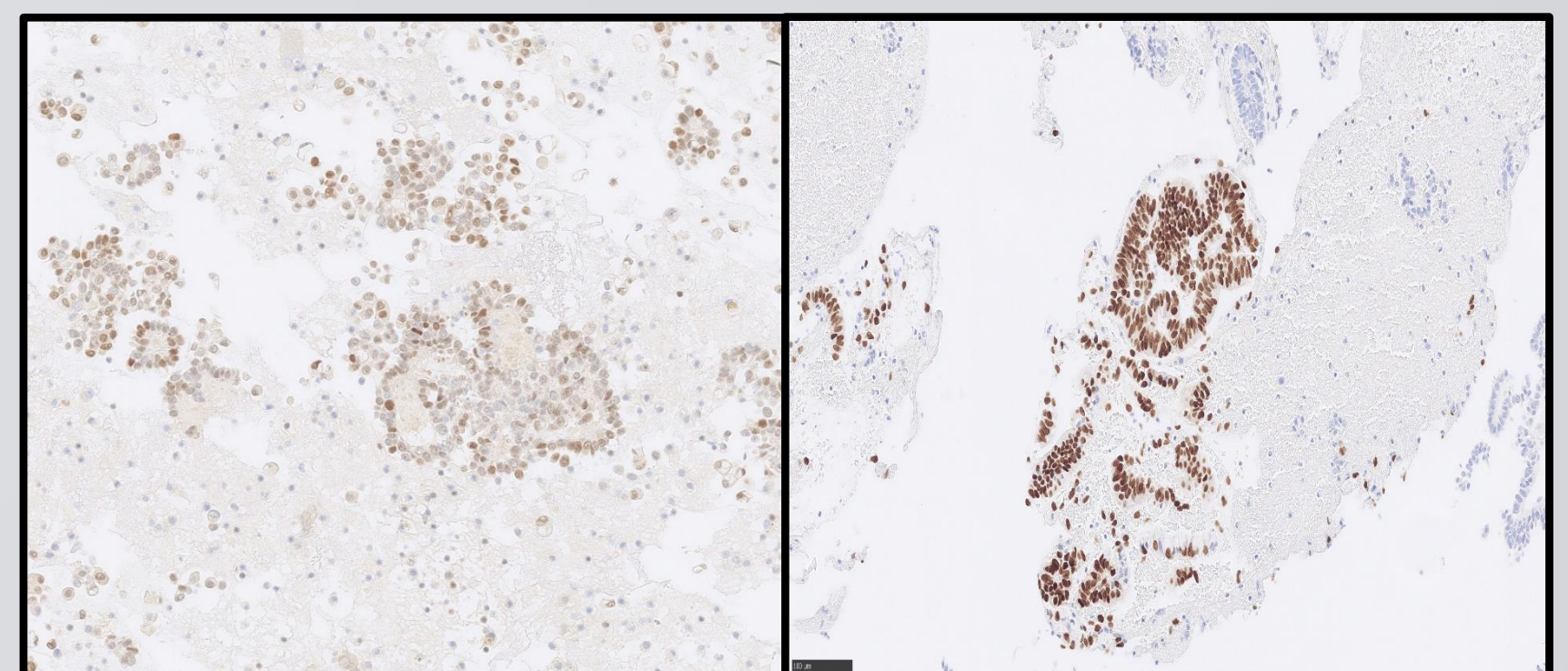
Review of the endometrial curettage revealed an adenocarcinoma with similar architectural and cytological features, including papillae with hyalinised stromal cores and focal eosinophilic secretions. No high grade atypia or solid component was seen.

Immunohistochemistry was subsequently performed on the 2005 endometrial curettage, finding a comparable profile to the pleural fluid cytology: PAX-8, GATA3, CD10 and TTF-1 (variable) were positive. ER, PgR, Napsin A and thyroglobulin were negative. There was wild-type staining for p53. MMR immunohistochemistry on the curettage specimen was proficient.

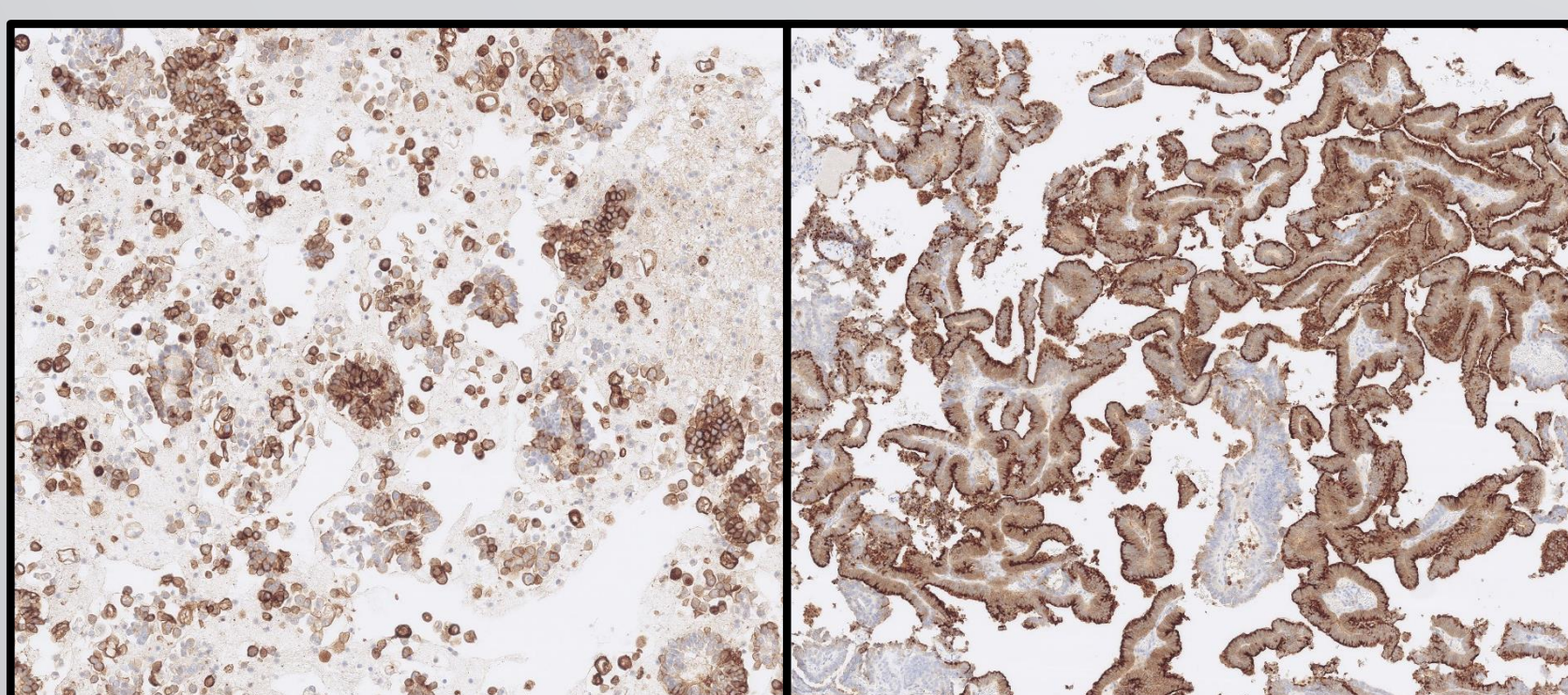
The endometrial tumour was reclassified (according to the WHO Tumours of the Female Genital Tract, 5th Edition) as a mesonephric-like endometrial adenocarcinoma (MLEA), with recurrence in the pleural fluid.



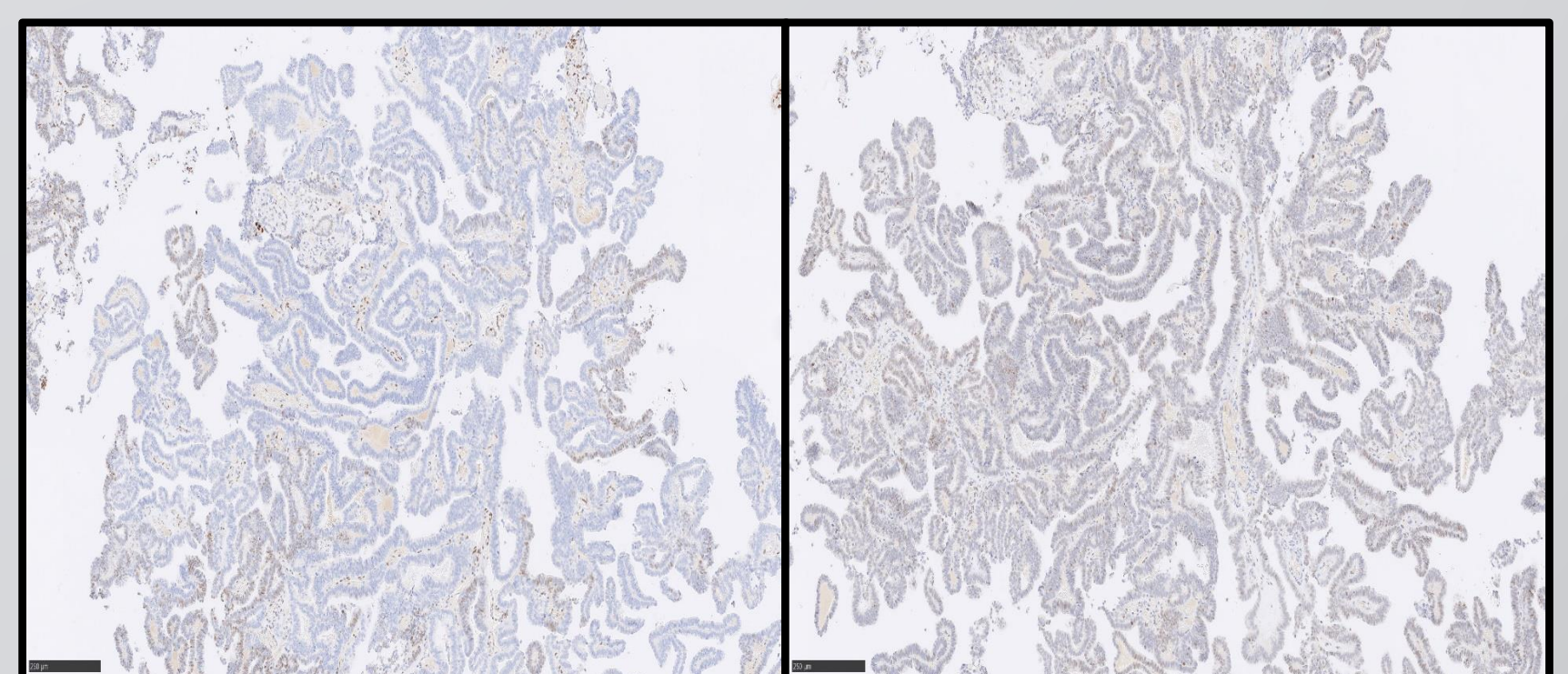
Left: Pleural fluid cytology clot preparation showing papillaroid groups of neoplastic cells, H&E x20. **Right:** Endometrial curettage specimen showing MLEA with a papillary architecture, H&E x4.



Left: GATA3 positivity in clot preparation, x4. **Right:** TTF1 patchy but strong positivity in endometrial curettage, x10.



Left: CD10 positivity in clot preparation, x4. **Right:** CD10 positivity (luminal distribution) in endometrial curettage, x4.



Left: negative or focal, weak ER staining in endometrial curettage, x4. **Right:** wild-type staining for p53 in endometrial curettage, x4.

DISCUSSION

MLEA is a rare, newly described entity, with 115 reported uterine cases and limited knowledge of clinical behaviour.¹ Although these tumours resemble mesonephric differentiation, they arise in the endometrium rather than the lateral wall of the uterus where mesonephric remnants are located. A recent diagnosis of a separate case of MLEA in our department aided our recognition of the features in this pleural fluid specimen. Advanced stage at presentation and tendency for early recurrence and pulmonary/liver metastasis is reported as typical of MLEA.² However, here is an interesting and unusual example of late recurrence, 16 years after primary diagnosis. The patient died shortly after the pleural fluid recurrence was diagnosed.

Awareness of the overlapping morphological features and unique immunoprofile of this novel entity can avoid mis-classification of primary endometrial disease and ensure consideration of primary endometrial site in patients who present with metastatic disease.

REFERENCES

- Deolet E, Van Dorpe J, Van de Vijver K. Mesonephric-Like Adenocarcinoma of the Endometrium: Diagnostic Advances to Spot This Wolf in Sheep's Clothing. A Review of the Literature. *J Clin Med*. 2021;10(4):698.
- Horn, LC., Höhn, A.K., Krücken, I. *et al*. Mesonephric-like adenocarcinomas of the uterine corpus: report of a case series and review of the literature indicating poor prognosis for this subtype of endometrial adenocarcinoma. *J Cancer Res Clin Oncol*. 2020;146: 971–983