Neuroradiology Best Case
60 y/o F with PMH of L parietal meningioma s/p resection (2008), RCC s/p R nephrectomy (2016), R breast IDC s/p lumpectomy and radiation (2017), presents with cognitive deficits, R hand weakness

vasogenic edema with subfalcine herniation → brain MRI without and with contrast
heterogeneous lobulated dural-based enhancing mass at L parietal convexity
upper more homogeneously cellular vs lower more heterogeneously hemorrhagic
Preoperative evaluation: “Doctor, do you think this is a recurrent meningioma or a dural metastasis?”

yes
epithelioid spindle cells arranged in whorls and fascicles

Meningioma

epithelial clear cells with pale vacuolated cytoplasm

RCC
Immunohistochemical stain for renal cell carcinoma (anti-RCC antibodies)
The intraoperative frozen section diagnosis is confirmed on permanent sections.

Sections of specimen A show a piece of meningioma, predominantly of fibrous type pattern.

Sections of specimen B shows a collision tumor with a metastatic clear cell carcinoma surrounded by meningioma, with mixed fibrous and meningothelial type growth patterns. Focally, there is crowding of the meningioma cells and mitotic indices of greater than 4 per 10 high fields are identified. The immunostain for proliferation marker Ki67 shows focal hotspots within the meningioma with markedly elevated numbers of labeled cells. Immunohistochemical stains show the clear cell component to be strongly positive for marker RCC. Both the clear cell and meningioma neoplasms are positively stained for epithelial membrane antigen.
Collision tumor of metastatic renal clear cell carcinoma, clear type, into atypical meningioma, WHO grade II