Staging investigations, including CT scans of the chest, abdomen and pelvis, were negative for metastatic spread. The patient was evaluated by a surgeon, who judged the disease to be quite extensive, extending beyond the usual mastectomy borders. After discussion at the multidisciplinary Tumour Board, it was decided that a trial of “neoadjuvant” gemcitabine-taxane chemotherapy may help in reducing the extent of disease.

The patient was placed on a six-cycle gemcitabine-taxane chemotherapy regimen. On day one, gemcitabine 675 mg/m² (patient dose of 1083 mg) was given, while both docetaxel 100 mg/m² (patient dose of 160 mg) and gemcitabine 675 mg/m² were given on day eight. Dramatic improvement was seen after two cycles, with diminution of skin discoloration, skin thickening and papule appearance. After four cycles, MRI revealed a near-complete resolution of the areas of asymmetric enhancement in the breast as well as marked improvement of skin thickening and enhancement (Fig. 2b). Clinically, the involvement beyond the mastectomy borders had resolved, making the patient eligible for resection with intent to achieve wide negative margins (Fig. 1b).

The patient had a simple mastectomy extending beyond the usual mastectomy borders and coverage with split-thickness skin graft 4 weeks after her last cycle of chemotherapy. Grossly, there was a 2–5 cm margin around the skin papules. Histologically, there was extensive periductal fibrosis, dermal scarring, and hemosiderin deposition consistent with effects of chemotherapy upon the breast and skin. There was no evidence of residual disease, neither carcinoma nor angiosarcoma, in the skin or the breast.

Radiation-induced angiosarcoma is a rare but well-known sequela of breast conserving surgery that is often advanced on presentation due to a delayed diagnosis. Survival is poor and systemic therapy options have traditionally been ineffective and limited. We report the first case of a locally advanced radiation-induced angiosarcoma of the breast that not only facilitated complete surgical resection, but also showed dramatic complete radiologic and pathologic resolution after neoadjuvant gemcitabine-docetaxel chemotherapy.

Epithelioid Cell Myofibroblastoma of the Breast: A Potential Diagnostic Pitfall

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A 40-year-old woman presented with a 0.9-cm, non-calcified, well-circumscribed nodular mass in her upper outer left breast, detected on screening mammogram. Ultrasound examination confirmed the presence of a solid hypoechoic nodule. There was no family history of breast cancer or recent trauma. Lumpectomy was performed. The surgical specimen was comprised
cells were diffusely stained with desmin (Fig. 1c) and only focally with α-smooth muscle actin and CD34. No immunoreactivity was obtained with cytokeratins, h-caldesmon, HMB-45, S-100 protein, CD68, and myogenin. The morphologic and immunohistochemical features of the present case are consistent with the diagnosis of “epithelioid cell myofibroblastoma (MFB)”. This is a very rare variant of MFB that may represent a diagnostic challenge due to the alarming features exhibited by neoplastic cells. Pathologist should be aware of this morphologic variant of mammary MFB to avoid confusion with malignant tumors such as invasive apocrine carcinoma, histiocytoid variant of invasive lobular carcinoma, and epithelioid cell leiomyosarcoma, especially when dealing with small biopsies.

Clear Cell Variant of Ductal Carcinoma in situ of the Breast

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Ductal carcinoma in situ (DCIS) of the breast is an intraductal carcinoma without stromal invasion. The clear cell variant of DCIS is extremely rare. A 43-year-old woman consulted to our hospital because of an induration of the left breast. Mammography and ultrasonography strongly suggested DCIS, which was confirmed by on core needle biopsy.

Left mastectomy and lymph node dissection were performed. Grossly, the breast showed no tumor formation. Histologically, the lesion was composed of a monotonous proliferation of clear cells with hyperchromatic nuclei (Fig. 1). No stromal invasion or lymphovascular permeation was seen. The surgical margins were negative for tumor cells and the dissected lymph nodes showed no metastatic lesions. The DCIS showed solid, papillary, comedo, and cribriform patterns. The nuclear grade was intermediate (Fig. 2). The tumor cells were negative for glycogen, fat, and mucins. Immunohistochemically, the tumor cells expressed various cytokeratins (AE1/2, CAM5.2, 34βE12, 5/6. 7, 8, 14, 18, and 19), synaptophysin (focal), KIT, CEA (luminal), CA125 (focal), MUC1, vimentin, ER, and PgR. Ki-67 labeling was 10%.

In general, clear cell pattern occurs in the presence of glycogen, mucins, and lipid. Majority of clear cell formation...