BREAST IMAGES

Solitary Fibrous Tumor of the Breast

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An 88-year-old woman underwent right radical mastectomy in 1977 after the diagnosis of invasive ductal carcinoma. The patient was followed-up until 1990 without evidence of recurrent disease. However, she had not been examined until 2001, when a follow-up mammography revealed a well-circumscribed 6 mm mass in the lower inner quadrant of the left breast. Because of the previous history of breast cancer, the tumor was excised.

Microscopically the tumor was well circumscribed, lacking mammary ducts and lobules (Fig. 1a). It showed areas of increased cellularity alternating with hypocellular, dense, eosinophilic, "keloid-like" collagen areas. The cells were spindle shaped, with elongated nuclei and scanty eosinophilic cytoplasm (Fig. 1b). No nuclear atypia or mitotic figures were present. There was no necrosis, adipose tissue, or calcifications. By immunohistochemistry, the tumor cells showed diffuse positivity for CD34, vimentin, estrogen receptors, and progesterone receptors. They were negative for alpha smooth-muscle actin, cytokeratin, desmin, and S-100 protein.

Figure 1. (a) Low-magnification appearance of the well-circumscribed tumor surrounded by benign breast tissue. (Hematoxylin and eosin; original magnification ×20.) (b) Intermediate magnification showing hypocellular areas alternating with dense, collagenized, "keloid-like" areas. (Hematoxylin and eosin; original magnification ×40.)

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