Huge Cutaneous Melanoma with Intratumoral Heterogeneity

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Clinical Image

A 72-year-old man presented with a melanoma measuring 6 cm × 5 cm over the right scapula (Figure 1). He reported that the lesion had grown rapidly over the past 6 months and had arisen from a long-known pigmented lesion. Clinical examination, sonography of the lymph nodes, and whole body scan with MRI and CT showed no evidence of metastases. Wide surgical excision with 2 cm margins and sentinel lymph node biopsy was performed. Histological examination showed an ulcerated, secondary, nodular, superficial spreading melanoma with partly animal-type differentiation and a tumor thickness of 20 mm. Four of six biopsies harbored BRAF V600E mutation as shown by molecular mutation analyses. This intratumoral heterogeneity corresponds to immunohistochemistry, which shows positive staining for BRAV V600E juxtaposed to wild type tumor tissue (Figure 2). This image shows how different melanoma clones can be present in one primary tumor with potential implications for a targeted therapy with BRAF and MEK inhibitors.