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FDG PET/CT Depicts Cutaneous Plasmacytoma

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Abstract: A 63-year-old man with a 1-year course of IgA- λ multiple myeloma (MM) and a history of autologous stem cell transplantation presented with multiple nontender, nodular violaceous skin lesions that were located predominantly on his trunk. Diagnostic workup using ^{18}F -FDG PET/CT revealed disseminated disease including highly hypermetabolic (sub)cutaneous lesions, consistent with active manifestations of MM. Histopathology confirmed monoclonal, λ -restricted plasma cell infiltrates with a high proliferation index (Ki-67) of about 80%. Cutaneous manifestation of MM is an uncommon observation in clinical practice portending poor prognosis.

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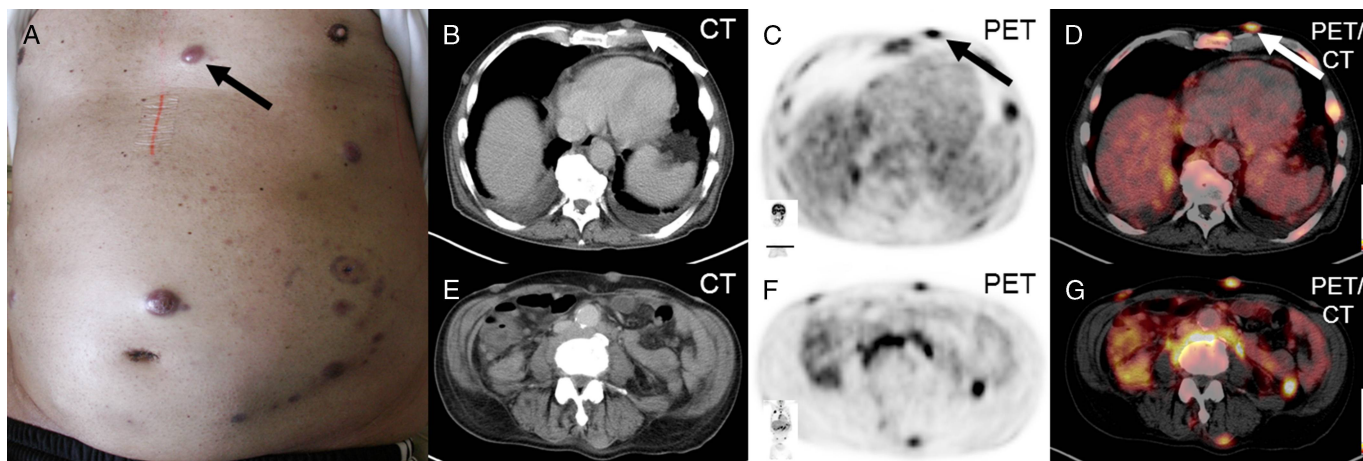


FIGURE 1. A 63-year-old man with a 1-year course of IgA- λ multiple myeloma (MM) (stage IIIA) and a history of autologous stem cell transplantation presented with multiple nontender, nodular violaceous skin lesions that were located predominantly on his trunk (**A**, arrows). Diagnostic workup using ^{18}F -FDG PET/CT revealed disseminated disease including highly hypermetabolic (sub)cutaneous lesions (**B-G**, arrows), consistent with active manifestations of MM. Histopathology confirmed monoclonal, λ -restricted plasma cell infiltrates with a high proliferation index (Ki-67) of about 80%. Cutaneous plasmacytomas are monoclonal proliferations of plasma cells, which can be classified into primary (with no other concomitant bony or extramedullary disease) or secondary. Primary cutaneous plasmacytomas are considered infrequent plasmacytic variants of primary cutaneous marginal zone B-cell lymphomas.¹⁻³ Secondary cutaneous plasmacytomas are usually associated with MM. The skin involvement in MM usually represents the direct dissemination of the disease from an adjacent lesion or, more infrequently, results from lymphatic or hematologic metastatic extension.^{4,5} Interestingly, a specific tropism of myeloma cells to sites of previous trauma has been reported.⁶ The risk of cutaneous involvement is thereby independent of the immunoglobulin class type.⁷ Cutaneous manifestation of MM is an uncommon observation in clinical practice. Although it can also be seen as the initial manifestation of the disease, it usually occurs in late stages of MM in patients with a high tumor burden and signifies aggressive disease. Consequently, prognosis is poor; patients have a very short survival period once specific skin lesions appear, regardless of the therapy administered. Life expectancy ranges around 12 months after diagnosis.^{8,9} Two months after initial appearance of the cutaneous nodules, our patient receives salvage chemotherapy and is still hospitalized.