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ON THE COVER

At top is the PET-controlled therapy arm of a proposed design for randomized trials evaluating the impact of PET on disease management. Patients are randomized either to this arm or to standard therapy. At bottom are ^{18}F -FDG PET/CT studies of a patient with soft-tissue sarcoma of the right thigh. The patient was treated with presurgical chemotherapy, and histopathologic analysis revealed 95% treatment-induced necrosis. This finding was reflected by a marked decrease in tumor ^{18}F -FDG uptake. Quantitatively, tumor SUV decreased from 10.0 to 1.0. In contrast, there was no major change in tumor size on CT (arrows).

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