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).

SEE PAGES 38S AND 43S