The role of surgery in pediatric cancer

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The survival of children with cancer has improved significantly during the past two decades as a result of cooperative group studies employing multidisciplinary care. These improvements have been influenced by the development of contemporary diagnostic methods including CT, MRI, U/S, and scintigraphy, biochemical tumor markers, flow cytometry, genetic information, availability of new antitumor agents used in multimodal chemotherapy programs, alterations in radiotherapy (brachytherapy, intraoperative radiation, hyperfractionated techniques and total body irradiation with bone marrow transplantation[BMT]), and carefully planned operations integrated into the therapeutic scheme to completely remove solid tumors primarily, as a delayed operative procedure, at a second—look resection after other treatment for previously unresectable tumors, and in some instances bulk reduction in anticipation of BMT. Surgery also remains an important component of the overall care of the child with cancer as a method of staging, for diagnostic biopsy, selected resection of metastases, venous access for nutritional support, and in the management of complications of cancer therapy.