

Limb-Sparing Surgery May Not Provide Better Quality of Life than Amputation for Bone Cancer Patients

Atlanta 2009/08/10 -Limb-sparing surgery, which has been taking the place of amputation for bone and soft tissue sarcomas of the lower limb in recent years, may not provide much or even any additional benefit to patients according to a new review. The analysis, published in the September 15, 2009 issue of *Cancer*, a peer-reviewed journal of the American Cancer Society, indicates that patients and physicians should rethink the pros and cons of limb-sparing surgery and amputation.

Patients with tumors of the bone or soft tissue in their arms and legs require surgery to remove their cancer. To compare the costs and benefits of amputation compared with limb-sparing surgery in these patients, Canadian researchers Ronald Barr, M.D., M.B., Ch.B., of McMaster University and Jay Wunder, M.D., M.Sc., of the Mount Sinai Hospital and the University of Toronto reviewed all published papers on limb-sparing surgery that also measured patients' functional health and quality of life.

The review found that while limb-sparing surgery is generally as effective as amputation in ridding the patient of cancer, it tends to be associated with more early and late complications. Surprisingly, studies also show that, particularly for patients with lower limb bone sarcomas, limb salvage does not provide a better quality of life to patients than amputation. Most studies have found that the differences in disability between amputation and limb-sparing patients are smaller than expected. Many revealed no significant differences in psychological health and quality of life between patients who underwent amputations and those who had limb-sparing surgery. However, there appear to be greater advantages to limb-sparing surgery over amputation for higher surgical sites in the lower limb, such as the hip.

Some studies have looked at the costs of amputation vs limb-sparing surgery. "Up front" surgical costs, the duration of rehabilitation, and the need for revisions are all greater for limb-sparing surgery. However, amputation carries longer term costs related to artificial limb manufacture, maintenance, and replacement.

The authors say additional research is needed to provide a thorough comparison of amputation and limb-sparing surgery in different types of patients with bone and soft tissue sarcomas. "Future studies that include function, health-related quality of life, economics, and stratification of patients by age will be useful contributions to decision-making... by patients, health care providers and administrators," said Dr. Wunder.

Article: "Bone and soft tissue sarcomas are often curable – but at what “cost”? A call to arms (and legs)." Ronald D. Barr and Jay S. Wunder. *CANCER*; Published Online: August 10, 2009 (DOI: 10.1002/cncr.24458); Print Issue Date: September 15, 2009.

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