

Contemporary Musculoskeletal Tumor Research

Selected Papers Presented at the 2008 Meeting of the Musculoskeletal Tumor Society

Editorial Comment

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Published online: 25 August 2009
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The purpose and focus of the Musculoskeletal Tumor Society is stated on the organization's website. "The mission of the Musculoskeletal Tumor Society is to advance the science of orthopaedic oncology and to promote high standards of patient care. It does this through excellence in education and research" [1]. The 2008 MSTs meeting in Phoenix, AZ, November 6–8, 2008, and hence this symposium, follows part of the prescription, providing an excellent forum for education. The second portion of the mission statement encourages advancing orthopaedic oncology through research. The organization has enjoyed limited success in conducting or promoting research despite valiant efforts by the leaders of the Research Committee. Why? Answers come from the membership, the discipline, and the organization.

The membership of the MSTs has changed dramatically over the years. The original "Piranha Club" had 18 domestic orthopaedic surgeons, of whom only one remains actively practicing surgical oncology. The roster has ballooned to over 220 members, including Candidate, Affiliate, and Emeritus Members. While this reflects successful maturation of orthopaedic oncology, it has a dilutive effect on research and possibly even clinical progress. Case volume is correlated with outcome in all other cancer systems studied to date, for disease of organs ranging from prostate to pancreas. Why shouldn't it also be true for bone and soft tissue sarcomas? As knowledge and training disseminate, experience per surgeon inevitably declines. Smaller case loads prevent concentrated

expertise. Paradoxically, the numerical expansion of our membership may have improved our ability to deliver more convenient, good quality care to more people, but it may prevent us from making substantive advances in the field.

Single centers usually lack the volume to ask or answer important questions. Collaboration is essential to maintain patient numbers required to study rare diseases. Standardization of treatment protocols is essential if the cases from different centers may be combined. This requires strong-willed commitment on the part of musculoskeletal oncologists to suppress some of their individuality and cooperate. This is necessary to advance the discipline and improve patient care. Large cooperative groups (eg, Children's Oncology Group or COG, the Southwest Oncology Group or SWOG) have failed due to their cumbersome structure and an inability to channel resources to orthopaedic problems. The greatest success has been in ad hoc collaborations such as that coordinated by the MSTs to review the outcome of patients treated by limb salvage or amputation for distal femoral osteosarcoma [2], or the Toronto Group's prospective evaluation of prognostic genetic markers (p53 and RB) in osteosarcoma patients from six centers [3].

This symposium includes a variety of novel and informative clinical papers dealing with resection and reconstruction techniques. However, most are single center studies that should be viewed as hypothesis generating ideas. They require confirmation in larger trials involving other centers to show the results can be generalized. The levels of evidence are typically IV. There is also a deficiency in basic and translational research needed to advance the field. Clearly, more effort needs to be expended to improve the quality and generalizability of our research. Investigators and reviewers need to support

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cluster- and association-based comparative research efforts, clinical trials, and basic investigations.

There are national initiatives in this direction. Responding to the challenge proposed by the American Academy of Orthopaedic Surgeons, the Musculoskeletal Tumor Society is trying to develop evidence-based assessments of practice. This symposium includes the Society's first effort along those lines, summarizing the best available opinion regarding the biopsy of musculoskeletal tumors. More recently, the AAOS/ORS/NIH sponsored a workshop in Albuquerque to define the research agenda for prospective outcome studies in each orthopaedic subspecialty. Two tumor projects made the final cut of recommendations. The first was a prospective study of proximal femoral metastases, comparing internal fixation (rodding) with joint arthroplasty. The second was a long-term followup of reconstructions performed for patients randomized to receive, or not receive, muramyl

tripeptide phosphoethanolamine (MTP-PE) in the national Intergroup-133 study. These projects should receive the support of the oncology community, and would be good topics on which the MSTs could focus and include in future CORR Symposia.

References

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