

The Siriraj Musculoskeletal Tumor Board

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INTRODUCTION

Musculoskeletal oncology is related to the management of benign and malignant bone and soft tissue tumors. The principles of this particular field are like any other organ tumor service which needs a multidisciplinary team approach. The individuals in the team should have the knowledge and skills to handle the complexity of the cases presenting with these tumors. In the past, Siriraj Hospital had an informal group of staff who took care of patients with these conditions. Most of the patients were treated with surgery and radiation therapy without chemotherapy. At that time, the chances of survival for patients with malignant bone and soft tissue tumors were dismal.¹ Since 1985, adjuvant chemotherapy has been accepted as having a major role in the management of malignant bone and soft tissue tumors.²⁻⁵ However, there has been no standard regimen for common malignant tumors such as osteosarcoma or Ewing's sarcoma in Thailand. In 1991, the first Mahidol regimen protocol for the management of osteosarcoma was established by a subcommittee set up to establish a regimen for treating osteosarcoma. This project was sponsored by the Mahidol Cancer Committee Network.⁶ Since then the survival rate of patients with osteosarcoma has improved. Patients with non-metastatic osteosarcoma survive longer than in the past.^{7,8}

In developed countries, the management of bone and soft tissue malignant tumors has dramatically improved in the past few decades because of advances in chemotherapy, imaging and surgical techniques. More patients now survive with better functional outcome.⁹ The goals of the management of these complex conditions are the same as before, that is to cure patients whilst maintaining a good quality

of life. The key to achieving this is to have in place an effective team approach to care. The team should consist of physicians who are experts in all the related fields. Such multidisciplinary care also requires the involvement of nursing services, social workers and physical therapists. Providing optimal delivery of both inpatient and outpatient cares in a multidisciplinary clinical setting creates considerable organizational and communication challenges, particularly in managing initial patient problems and coordinating the efforts of a number of different doctors. The Siriraj Musculoskeletal Tumor Board consists of staff who are expert and interested in musculoskeletal oncology management. The board provides its function of excellent care of these patients through 3 components: conferences, clinics, and inpatient rounds. Day-to-day collaboration of the team and regular meetings can obtain the correct diagnosis, staging of the disease and management plan. This process will make clear the responsibilities of each member of the team in each case, and will depend on the sequence of treatment.

The Siriraj Musculoskeletal Tumor Board Weekly Conference

The role of this conference is to help the staff review and correlate important information relating to new patients and patients with relapsed disease. As a result of this conference, the members can make a correct decision regarding diagnosis and appropriate management. The conference is held every Wednesday from 3-5 p.m. on the eighth floor of the Adulyadejvikrom Building in the Department of Pathology. The medical staff consists of pathologists, radiologists, medical oncologists, pediatric oncologists, radiation oncologists, orthopaedic

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Figure 1. A Siriraj Musculoskeletal Tumor Board conference in progress.

oncologists and nursing staff. Post-graduate fellows, residents and medical students also attend this conference as part of their training and medical program (Figure 1). All clinical information, radiographs, pathological slides and protocols are well prepared beforehand by a designated member of the staff. The cases are presented by the staff who are responsible for the patients. During the conference, each patient is reviewed with regard to a detailed medical update, mode of diagnosis, and appropriate management. This conference evaluates patients in a prioritized fashion. Patients with new, high-grade sarcomas will have the highest priority. Other categories will include relapsed or metastatic patients, patients with low-grade sarcomas, those with benign musculoskeletal tumors, and patients who require extramural follow-up or remote care. All of the patients' data, not only important clinical documentation, but also digital pictures of radiographs and pathology, are kept in a computerized database which can be retrieved at the time of follow-up and for research purposes.

By using this multidisciplinary team meeting, all the objectives of this board can be accomplished.

1. The correct diagnosis is made by correlating all the important information. The members need to arrive at a consensus before the final diagno-

sis is reported. In case of patient that need to have a second opinion, the board does not hesitate to do so. We have a national and international network to help. Many cases are sent for further consultation or confirmation of the diagnosis to other institutions or are even sent abroad to well-known institutes, such as the University of California, Los Angeles (UCLA). The correct diagnosis will allow the most appropriate treatment and good results for our patients.

2. The Siriraj Musculoskeletal Tumor Board conference is an ideal multidisciplinary team for musculoskeletal tumor patients. The collaboration of staff and the meeting is the role model for fellows, residents and medical students, not only at Siriraj Hospital but also from other institutions, to understand the importance of collecting and reviewing all the information before deciding on management. The experience of the principles gained from this meeting can be applied to all other fields of tumor management. During the discussion of each patient, they will gain knowledge of the steps and pathway of care needed. Moreover, the fellows, residents and medical students need to know when patients should be referred to a hospital center in order to have appropriate care.

3. At the conference, all patient data, including clinical, radiographic and pathological data is kept in the computerized database. All members

can share this information for teaching and research purposes. The information can be retrieved and is available to staff members at anytime.

Since mid-1998, one hundred and fifty six meetings have been held in this manner. One thousand and two hundred new and ongoing patients have been presented at these meetings. All patients were given a definite treatment plan following the discussion at the end of the meetings. Patients were managed in outpatient clinics or inpatient wards depending on the sequence of care and the treatment regimen adopted. Regarding academic and research work, six scientific papers have been published in the international journals and 9 in the local journals. Eleven oral and poster presentations have been published in international proceeding abstract books and 17 published in local proceeding abstract books. Our team has been invited to write 6 chapters in textbooks. We hope that the Siriraj Musculoskeletal Tumor Board will help improve the care of musculoskeletal tumor patients, the training program and research, and act as a model of multidisciplinary care team for the management of patients with musculoskeletal tumors.

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