Guest Editorial

Ballet Injuries

by James G. Garrick, M.D.

Those of us dealing with the medical aspects of performing artistry like to view performing arts medicine as a single medical entity. In actuality it, like "sports medicine," is a medical community consisting of individuals with (usually) very parochial interests. These interests arise either from personal participation in an art form or from a long interest and extensive experience in dealing with participants in a particular art form. Thus the practitioner adept at managing the medical problems of cellists may be no more familiar with ballet injuries than is the team physician for a football team.

This issue deals with dance, primarily ballet. Although arts medicine does not lend itself to a rigid scientific approach, we have, with this issue, attempted to accomplish two ends: first, to offer practical material hopefully useful to the practitioner caring for dancers, and, second, to illustrate the various types of articles needed in all of the many subdisciplines of performing arts medicine. Unlike the long- and well-established specialities currently busying themselves with "outcomes research," performing arts medicine is still in the process of bounding the scope of the discipline, identifying problems, and establishing philosophies of management. Thus, the literature is necessarily "softer." Anecdotal reports, small series, and opinions may be very elucidating in a newly emerging field.

Over a decade ago I listened to an English orthopedist lecturing at a DanceMedicine Conference describe technique—or lack thereof—as the single factor most responsible for injuries among ballet dancers. While this statement seemed terribly simplistic at the time, it was difficult to contest *any* comment coming from Justin Howse, arguably the most experienced expert on ballet injuries in the world. The first of the articles in this issue reiterates Mr. Howse's opinion on the topic of ballet injuries.

Perhaps more importantly, however, the Howse article emphasizes the necessity of understanding and being utterly familiar with the training of ballet dancers in order to appropriately manage their injury problems. More simply put, if a physician or therapist has never observed a ballet class, it is unlikely that he or she will be able to adequately manage and/or prevent ballet injuries.

The next article by the Hamiltons illustrates the fact that the medical aspects of ballet reach well beyond orthopedic problems. Dr. Linda Hamilton's insight and investigations concerning eating and menstrual disorders among ballet dancers illustrate remarkable similarities and differences among diverse geographic and ethnic groups of dancers. Dr. William Hamilton—perhaps America's dean of "ballet orthopedists"—assists in examining the association of these systemic medical problems to musculoskeletal injuries.

Dr. Macintyre's contribution illustrates the value of placing dance injuries in the context of knowledge gained in other athletic environments. Although it seems patently obvious that ballet might well represent the ultimate—as well as the most aesthetically pleasing—example of "kinetic chain function," little attention has been paid to its role in the production of injuries. His observations, based on the careful examination of but a few dancers, should serve as a pilot for a more comprehensive effort in a potentially fertile area.

Parnianpour et al. describe their efforts to establish a database for the evaluation of trunk strength in ballerinas, which has previously been unstudied. In order to have a comparison population with known normative values, their measurements were made without turnout at the hips. They acknowledge, however, the practical importance of future measurements that incorporate the more typical posture of ballet dancers.

In our contribution, the goals were twofold: first, to provide numerical data that might be used to examine the influence of ballet training on hip rotation; second, and more important, to place the whole issue of hip rotation into the context of accepted orthopedic knowledge. Because the changes—or stability—of hip rotation measurements have been abundantly documented for the nondancing population, it seems only logical that these data should serve as the "normal controls" for any investigation of hip rotation and the methods employed for obtaining these values should be used when examining dancers.

It would seem that we might benefit from taking advantage of the orthopedic experience in dealing with abnormal hip rotation, namely, femoral anteversion (too much *turn-in*). The goal in the treatment for this condition is similar to that of the ballet dancer—to increase external rotation. In addition to exercises, a variety of splints, cables, and braces have been employed over the years. If, as Staheli concludes, nonoperative treatment is ineffective,[1] it seems that a substantial leap of faith is required to believe that ballet training can accomplish an end unattainable with the more draconian means that were employed medically.

REFERENCE

1. Staheli LT: Rotational problems of the lower extremities. Orthop Clin North Am 18:503–512, 1987.