Chairman's introduction

Soft tissue sarcomas (STS) are rare and very heterogeneous tumours, both pathologically and clinically. The annual incidence is around 2–3/100,000. In adults, they account for approximately 1% of malignant tumours, whereas in children they account for 7–8%. The 5-year survival rate in Europe for adult STS averages 60% with substantial geographical variations, whereas it is generally higher in children. STS comprise a wide variety of histological subtypes, and the respective proportion of each one appears to differ in the two age groups: Rhabdomyosarcomas dominates in children and malignant fibrous histiocytomas, liposarcomas and leiomyosarcomas in adults. These features may, in part, explain the differences in terms of natural history of the disease, radiosensitivity, chemosensitivity, and prognostic factors reported in the two groups.

Standardisation of diagnosis and treatment is difficult in STS due to their heterogeneity. One of the major advances in the treatment of STS is their treatment by multidisciplinary teams in specialised centres covering all the specialities involved in their diagnosis and treatment. With a multidisciplinary organisation, improved imaging, better surgical techniques and adjuvant treatment, the primary treatment is now less extensive. The major treatment aim is to preserve as many organs and functions as possible and secondarily to achieve a good cosmetic result. In children, STS are generally very chemosensitive, whereas in adults there is a desperate need for new effective drugs. Hopefully, the increasing knowledge on molecular biology in STS will, in addition to improving the diagnosis, also help in the development of new effective drugs — a development that is underway.

As these sarcomas are rare, it is very important that most childhood as well as adult patients with STS are included in international research trials, as this is the only way that improvement in the diagnosis and treatment of STS can be obtained. Moreover, translational research should be part of these trials as novel therapies directed on new molecular targets may create a new paradigm for cancer research and can transform the prognosis of some sarcomas.

In this section, various aspects of the diagnosis and treatment of STS will be discussed and updated: pathology with emphasis on molecular diagnostic techniques, imaging techniques, local control as well as the role of chemotherapy in childhood and adult STS. Whenever possible, the levels of evidence for the various treatment strategies will be pointed out.

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