Spinal Tumors in children

Spinal tumors in children are rare and heterogeneous and their treatment is very demanding. It is necessary to both manage the disease and preserve the spinal stability so that the spine can grow normally. As a consequence, results in terms of both mortality and morbidity are often suboptimal. We analyzed our experience over a time of 17 years with a series of 134 patients admitted in a single unit of Pediatric Neurosurgery accounting for 7.7% of all the patients admitted for central nervous system malignancies. The mean age was 8.5 years (14 days–26 years), and the mean follow-up was 28 months (3 months–13 years). They were 75 males and 59 females. Data were reviewed retrospectively and patients were divided into four groups according to the location of the tumor and their relationship with the surrounding tissues: intramedullary (46 patients), intradural extramedullary (25 patients), extradural (53 patients), and paravertebral tumors (10 patients). Low-grade glioma was the most common histology (14.1%). One hundred seventeen patients were surgically treated, with a total of 138 surgical procedures. A posterior approach was chosen in 111 cases, with osteoplastic laminotomy in 80. Radiotherapy was administered to 22 patients and chemotherapy to 26. At the last follow-up, 16 patients (11.9%) had died. A good control of the tumor with clinical improvement was reported in 100 patients (74.6%). Five patients developed a spinal instability (3.7%). Goals of surgery and results in terms of mortality and morbidity are discussed.

Biography

Barbara Spacca graduated in Medicine and Surgery at the University of Perugia and specialized in Neurosurgery at the University of Florence. She has worked in research and clinical neurosurgery at the Alder Hey Children’s Hospital in Liverpool (UK), the Hospital of Pediatrics “JP Garrahan” Buenos Aires (Argentina) and the Great Ormond Street Hospital, London (UK) and at the Walton Centre for Neurology and Neurosurgery, Liverpool (UK). Since 2010, it is part of the structure of Neurosurgery AOU Meyer.

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