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ABSTRACTS

THE USE OF TOTAL CT IN DETECTING DISTANT METASTASES OF BONE SARCOMAS.

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Introduction: According to the ESMO 2009 recommendations for examination of patients with bone sarcomas, it is necessary to study the primary lesion, two adjacent joints, the chest, and perform bone scan. Our observation indicates this amount of research for the staging of the disease to be inadequate.

Materials and Methods: In the children's department in the period from May 2010 to February 2012 for staging the disease, a total spiral computed tomography was performed in addition to the standard study. We examined 16 children aged 8 to 18, 5 with Ewing's sarcoma and 9 with osteogenic sarcoma. The study was conducted on a 64-slice General Electric computer tomograph, Light Speed VCT model, 1.25 mm slice thickness, 2.5 mm pitch, with further slice reconstruction 0.625 mm. Contrast enhancement was not performed.

Results: In 2 of 16 patients (12.5% of patients) individual lesions were revealed that were not detected by bone scan. They were located in the medullary canal of the humerus in a patient with a lesion of the radius of the same limb and in the medullary canal of the diaphysis of the femur of the opposite limb.

Conclusions: Total computed tomography using modern devices in patients with bone sarcomas may be an alternative to total magnetic resonance imaging in the examination of patients.

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Introduction: Late infection of oncoendoprosthesis is a threatening complication that can ultimately lead to amputation. Existing approaches in the treatment of this pathology (removal of the festering endoprosthesis, installation of a temporary cement spacer impregnated with antibiotics, long-term antibiotic therapy, repeated reconstructive surgery) cannot ensure recovery of all patients.

Materials and Methods: In a group of three patients aged 19-22 years who received knee endoprosthesis in 2004, 2005, 2006 due to distal femur osteosarcoma, endoprosthesis infection occurred 3-4 years after surgery. The reasons were: tooth infection, lengthening of the implant, unknown reason. *Staphylococcus aureus* was plated in 2 patients, *Staphylococcus epidermidis* in 1 patient. Treatment consisted of removal of the endoprosthesis, installations of the spacer (from 2 to 5 times in one patient), prolonged antibiotic therapy for about two years. The extremities were not bent at the knee joint. After 3-4 months, spacer re-infection was observed. It was decided to perform complete removal of the spacer in all patients, install a rod apparatus for external fixation of bone fragments. After 4-5 months, reimplantation of endoprosthesis impregnated with silver was performed.

Results: In all patients an excellent functional result was received: the flexion function of the knee is fully recovered; there is no evidence of infection from 9 months to 1 year after surgery. One patient is pregnant, another one returned to her job, and the third one is preparing for enrollment at a university.

Conclusions: Treatment of infections of oncologic prostheses should be more aggressive with the removal of foreign bodies in contrast to the treatment of infections of orthopedic endoprotheses. .