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## The first experience of intraoperational navigating system application at the resections of pelvic bones

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Now operations in the field of bones and pelvic joints are still insufficiently widely made. Difficult anatomic-topographical links of the pelvic bones and surrounding fabrics complicate the performance of radical operative intervention.. The first experience of the application of intraoperational navigating system in surgical treatment of patients with tumors of bones of a pelvic is presented in the country. The purpose: the introduction of highly technological methods of treatment at tumors of the pelvic bones.

Materials and methods: we represent the experience of the treatment of 20 patients with the use of intraoperational navigating system BrainLab from December, 2010 till December, 2012 in the clinic of general oncology 'The Russian oncological center of science of N.N.Blohin' of the Russian Academy of Medical Science. Age of patients is from 21 till 68 years (average – 37,2 years). There are 11 women and 9 men in the given group. The following resections are executed: 3 resections of the sacroiliac joint with combined bone grafting, 5 resections of iliac bone, 4 resections of pubic bone, 3 internal hemipelvicectomy, 5 resections of a sacrum. Histologically presented: 7 patients with giant cell tumor, 9 patients with chondrosarcoma of the II degree of malignancy, 1 patient with osteosarcoma and 3 patients with chordoma.

Radical operations according to the preoperative planning which were confirmed histologically were executed to all the patients. The accuracy of the resection performance varied from 1,2 to 1,8 mm. All the patients are alive without any disease signs through the given period of time. The duration of the operations was from 2,5 to 6,5 o'clock. The blood loss was from 700 ml to 3,5 liters (average - 2,5 liters).

Conclusions. The application of intraoperational navigating system raises radicalism of the treatment, considerably expands indications to the performance of safe operations on functionally significant zones, improving the results of the treatment and the quality of life

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