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Selective arterial embolization of bone tumors

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Background: To assess the efficacy of selective arterial embolization for primary and metastatic bone tumors.

Methods: 18 patients with primary and metastatic bone were treated at RCRC RAMS in 2000-2011 years. Men - 10 (55.6%), women - 8 (44.4%). The average age $47,28 \pm 14,42$ years, range 21-68 years. Primary lesion of bone - in 7 patients, metastatic - in 11 patients (mainly metastatic kidney cancer). Distribution by site of lesion: the spine - 12 cases, other departments - 6 cases. If it affects the spine, embolization was performed in corresponding segments (with the exception an Adamkiewicz artery). The goal of embolization: palliative care, sometimes in combined schemes - 10 cases, preoperative embolization of the arteries feeding the tumor to decrease intraoperative blood loss - 8 cases. Most often performed one embolization - in 16 patients, 2 patients - performed twice due to extensive network of collateral vessels. Used material: beads - in 10 cases (particle sizes ranged from 100 to 500), a spiral - in 8 cases.

Results: In 100% of cases, embolization was technically successful. In 6 (33.3%) cases a residual blood remained within 5-30%. Clinical response after palliative embolization obtained in 90% of cases in the form of pain relief, improvement of limb function. In 75% of cases of preoperative embolization it was possible to achieve significant decrease intraoperative bleeding during subsequent operation. Postembolization syndrome was present in most patients, paresthesias were observed in 27.8% of cases. Severe complications of embolization was not noted.

Conclusion: Selective embolization of the arteries - the impact of an effective option in the treatment of primary and metastatic bone tumors for palliation or as part of combination therapy, as well as preoperative treatment for reducing the risk of surgery and blood loss. Careful feeding artery embolization, especially if you have many collaterals, is necessary to achieve an adequate effect.

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