

Vascular Reconstructions After Wide Resection Of Extremity Sarcoma

Onder Ofluoglu,MD

Bahcesehir University Medical School, Istanbul; Turkey

Abstract # 10957

Background and purpose of the study

Major vascular resection may rarely be indicated during wide resection of the extremity sarcomas due to arterial invasion of the tumor. The limited number of information is available in the literature regarding oncologic and orthopedic results of major vascular resections and reconstructions. In this case series, the final results of eight sarcoma cases were treated major vascular resections and reconstruction were evaluated.

Patients and Methods

Between 2008-2015 , eight patients with bone or soft tissue sarcoma were treated wide resection including major vascular resection . Two of the patient presented upper extremity and six of the patients lower extremity tumors. Five patients presented tumor recurrence while three patients had primary tumors. Reconstruction was done aoutograft in 6 patients and synthetic graft in remaining two. In five patients, major vein resections, and in 3 patients major nerve resections were also performed,however, reconstruction of the vein were necessary only in two. None of the nerve resections were reconstructed. In addition to vascular reconstructions, local or free soft tissue flap were done in four patients. All of the patients received pre- and/or postoperative chymo- and/ or radiotherapy .

Results

The mean follow-up was 38,6 months. (1-78 months).Tumor free margins were achieved in all patients, but resection was marginal in one. At final follow-up, patients were evaluated clinical and radiologically for vascular status of the extremity, patency of the arterial graft, functional (MSTS score) and oncological status. At final follow-up four patients has no evidence of disease, 3 patients developed local recurrence and/or metastasis and one patient died of disease. Local recurrence were treated amputataion in two patients, re-resection in one patients. The vascular reconstructions were patent without any symptoms in seven patients. One patient deveoped 70% occlusion of the femoral graft and vascular clauducatio symptoms. The mean MSTS score was 78 % of the uninvolved extremity. Functional status were worse in patients underwent nerve resection or radiotherapy (lymphedema).

Conclusion

The vascular reconstructions after wide resections made limb salvage possible in all patients. However more than one-third of the patients eventually resulted with amputation. Additional major nerve resections and radiotherapy were associated with lower functional status.