Vascular Leiomyosarcomas of the Lower Extremity

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Background: Vascular leiomyosarcomas are rare. There are only few reports in the literature on the treatment and prognosis of these aggressive tumours.

Purposes: The aim of this study is to evaluate the current treatment protocols and the oncological outcome of the lower extremity leiomyosarcomas of vascular origin.

Patients and Methods: Between 1998 and 2014, 142 patients with leiomyosarcomas were treated at our institution. Seven patients (4.9%) with primary vascular leiomyosarcomas of the extremities were identified. There were 3 males and 4 females with a mean age of 72.6 years (range, 46 to 82 years). Three leiomyosarcomas arose from the femoral vein, 2 great saphenous vein, 1 anterior tibial vein, and one from the posterior tibial vein. Three patients (43%) had metastasis at presentation, while another patient developed metastasis at 3.5 months from diagnosis. Two patients had amputation, three patients had excision without vascular reconstruction followed by radiotherapy, while the remaining two patients had no surgery because of disseminated metastatic disease at diagnosis.

Case	Age (yrs)	Gender	Affected Vessel	Metastatic Disease	Treatment	Survival (mths)
1	46	F	Femoral Vein	At presentation	Palliative chemotherapy and radiotherapy	AWD 23
2	80	M	Saphenous Vein	No	Local excision and postoperative radiotherapy	NED 60
3	70	F	Femoral Vein	At presentation	Above knee amputation and palliative chemotherapy for lung metastasis	AWD 14
4	64	F	Femoral Vein	At 3.5 months	Local excision and postoperative radiotherapy	DOD 18
5	81	F	Anterior Tibial Vein	At presentation	Palliative chemotherapy and radiotherapy	DOD 22
6	82	M	Saphenous Vein	No	Local excision and postoperative radiotherapy	DOD 9
7	82	M	Posterior Tibial Vein	No	Below knee amputation	NED 64

Table 1: Data on Patients

Results: At a mean followup of 30 months (range, 7 to 64 months), two patients were free from disease, three had died with metastatic disease, while two patients were alive with pulmonary metastases. The overall survival at 5 years was 44% as compared to 62% in those patients with leiomyosarcomas of non-vascular origin.

Conclusions: Vascular leiomyosarcomas are rare but aggressive tumours with high rate of early metastasis and poor survival. A multicenter study is needed to determine the best treatment protocol.