Suppl 2. Mean dimensions of select retroperitoneal veins.

Vein/segment	Females			Males		
	Mean length (mm)	Mean diameter (mm)	Mean surface area (mm²) (SD)	Mean length (mm)	Mean diameter (mm)	Mean surface area (mm²) (SD)
Right adrenal vein	6.6	2	42.3 (18.9)	6	1.8	33.9 (13.5)
Left adrenal vein	16.1	3	144.4 (71.9)	33.9	3.2	230.8 (74.2)
Right renal vein	27.5	11.9	1,032.9 (328.7)	33.9	12.3	1,298.7 (179.7)
Left renal vein, medial	36.7	15.8	1,804.8 (348)	42.4	16.9	2,256 (596.9)
Left renal vein, lateral	27.2	12.6	1,059.4 231.7	35.4	11.8	1,307.9 (289.5)
IVC I	64.9	21.6	4,324.4 (723.9)	70.3	22.5	5,009.9 (1,783.7)
IVC IIA	43	27.4	3,731.6 (1,138.3)	63.4	28.7	5,697.3 (1,421.6)
IVC IIB	60.9	28	5,344.8 (723.7)	58.8	26.8	4,929.8 (912.7)
IVC III	27.4	28.2	2,416.5 (614.8)	21.5	31.4	2,470.9 (440)
Right ovarian vein	160.7	5	2,511.7 (780.9)	229.3	3.7	2,682.6 (594)
Left ovarian vein	173	5.5	2,968 (935.2)	250.2	3.9	3,036 (683.9)
Right common iliac vein	49.6	15	2,350.2 (886.9)	54.7	17.1	2,941.5 (582.4)
Left common iliac vein	67.3	17.2	3,671.9 (1,005)	72.4	17	3,861.6 (443.1)
Right external iliac vein	102.6	12.4	4,001.1 (742.4)	100.1	15.6	4,938.3 (1,058.9)
Left external iliac vein	100.7	13.2	4,199.4 (1013)	99.7	15.3	4,812.6 (954.7)

Dimensions were obtained from 10 females and 10 males from the LMS cohort in whom the listed veins were tumor free.

Determination of relative venous predilection for LMS: If all veins had the same predilection to developing LMS, then the surface area of the vein would be the main determinant of tumor concentration, with larger/longer veins having a greater incidence of LMS. To correct for the impact of caliber/length as a confounding factor in the frequency distribution of LMS in retroperitoneum, the mean venous surface area (VSA) was derived from 10 male and 10 female patients from the patient population. The length and diameter of each vein/segment was measured for each of the patients using multiplanar reformats on the institutional Picture Archiving and Communication System (PACS). VSA was calculated by obtaining (VSA = length × diameter × π). The frequency of tumor per surface area (frequency/mm²) was calculated and then normalized to IVC IIB segment. For paired veins not divided into segments, such as the ovarian or adrenal veins, the mean frequency per surface area and mean normalized frequencies were calculated.