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M.D. Prameela

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## **Morphometric study of the Sartorius muscle and its vascular pedicles**

M.D. Prameela, Mamatha Tonse, Rajanigandha Vadgaonkar, Chettiar Ganesh Kumar,  
Mangala M. Pai, Latha V. Prabhu, Vandana Blossom, B.V. Murlimanju, Amit Massand

### **Abstract**

**Objectives:** To determine the length and width of the sartorius muscle in South Indian population and to study the vascular pedicles entering into the sartorius muscle.

**Methodology:** The study included 45 formalin fixed cadaveric lower limbs. The length of the sartorius muscle belly and its tendon were measured. The width of the sartorius muscle belly was measured at the origin, middle part and the termination. The length of the sartorius tendon was also measured. The number of vascular pedicles into the sartorius muscle were counted and distance of the pedicles from the origin of the muscle were measured. The measuring scale, vernier caliper and cotton thread were used to perform the measurements. The data was tabulated and analyzed.

**Results:** The mean length of the sartorius muscle was  $512.1 \pm 38.2$  mm and its tendon measured  $74.2 \pm 23.4$  mm. The mean width of the muscle was  $19.4 \pm 5.9$  mm,  $17.9 \pm 6.5$  mm and  $13.2 \pm 4.1$  mm at its origin, middle part and the termination respectively. The number of vascular pedicles entering the sartorius muscle ranged between 0 and 7. The distance of the entry of vascular pedicle to the sartorius muscle from its origin was ranging between 76 mm to 528 mm.

**Conclusions:** The morphometric data obtained in the present study is important to the vascular and plastic surgeons. It has implications during the harvesting of the grafts and pedicle flaps. The data is also essential to the anthropologists, orthopedicians and clinical anatomists.

**Keywords:** pedicle flap, plastic surgeon, Sartorius, vascular pedicles