The Existence of a Sciatic Artery in Congenital Lower Limb Deformities

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Abstract : Persistent sciatic artery is a rare anatomical vascular variation resulting from a lack of regression of the embryonic dorsal axial artery. The axial artery is the main artery supplying the lower limb during development in the first trimester. The current research includes 206 sciatic artery cases in 171 patients between 1864 and 2012. It aims to identify the risk factor of sciatic artery aneurysm in congenital limb anomalies. Sciatic artery aneurysm was diagnosed incidentally in amniotic band syndrome (ABS) existing with no congenital anomaly in 0.7% or with double knee in 0.7%, with the tibia in 0.7% and with hemihypertrophy or soft tissue hypertrophy in 1.4%. Therefore, the current study indicates a relationship the same gene responsible for the congenital limb deformities may be responsible for non-regression of the sciatic artery. Furthermore, pediatricians should refer cases of congenital limb anomalies for vascular evaluation prior to corrective surgical intervention.

Keywords: amniotic band syndrome, congenital limb deformities, double knee, sciatic artery, sciatic artery aneurysm, soft tissue hypertrophy

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