

Orthopedics, Osteoporosis, Rheumatology & Trauma Care

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Inversed V-shaped high tibial osteotomy for severe varus deformity due to Blount disease

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Introduction: Blount disease is a growth disorder of the medial proximal tibial physis causing a multi-planar deformity of the lower limb. Several types of surgical approaches have been described for the correction of angular deformity including external fixation, opened-/closed wedge high tibial osteotomy (HTO), and tibial condylar valgus osteotomy. However, they are associated with various disadvantages such as limb length discrepancy, risk of infections, and delayed union at the osteotomy site, especially in cases of severe varus deformity.

Case presentation: We report a case of 16-year-old boy with unilateral severe genu varum caused by Blount disease. Although, several types of surgical approaches have been described for the correction of angular deformity of the knee, they are associated with various disadvantages such as limb length discrepancy, risk of infections, and delayed union or non-union at the osteotomy site, especially in case of such severe varus deformity. Considering that the current case patient was severely obese and a highly active young boy with severe unilateral genu varum, with the epiphyseal line almost closed, and with no abnormalities with respect to the intra-articular anatomical structures, inverted V-shaped HTO. After the treatment, the boy was not only able to perform his daily activities but was also able to participate in sports quite early. Although the required correction angle was quite large, inverted V-shaped HTO successfully correct the deformity with minimal disadvantages.

Conclusion: Inverted V-shaped HTO would be selected as one of the effective treatments for a severely obese, young, and highly active patient suffering from severe genu varum caused by Blount disease.

Biography

Seiju Hayashi is currently working in the department of Orthopaedic Surgery at the Graduate School of Biomedical and Health Sciences, Hiroshima University in Japan. His research interests include Osteoarthritis, Orthopaedics, Bone fracture, Knee replacement.

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