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MULTICENTER RADIOLOGICAL ASSESSMENT OF THE FASSIER-DUVAL FEMORAL RODDING.

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PURPOSE: A multi-center clinical study of 112 cases with femoral FD rod implants, having a follow-up time greater than 6 months, was performed to evaluate the efficacy of using FD rods.

METHODS: A template tool was designed for x-ray evaluation in order to assess complications involving migration, nail deformity, nail breaking, infections, non-telescoping, knee intrusion and epiphysiodesis.

RESULTS: Results revealed a re-operation rate of 14.3% where the majority of surgeries were either nail advancements due to migration or complete rod replacement due to damage from fracture. The most common complication observed was migration of the proximal fixation (19.6% upward migration, 21.4% apparent downward migration). An upward migration resulting in the loss of fixation was easily corrected by surgically pushing the nail down. The apparent downward migration was most likely due to bone growth around the implant, however, this did not cause any reported complications. There was 1 case of knee intrusion, 2.7% of cases did not telescope and 22.3% of patients showed nail deformity. No growth arrests or infections were reported.

CONCLUSION: The study revealed that the technique of using Fassier-Duval rods is replicable and although complications are similar to the formerly used DB rod, the reoperation rate was lower and no patients required arthrotomy of the knee joint.

SIGNIFICANCE: The Fassier-Duval rod is a safe implant for use in OI patients, however, accurate fixation is mandatory at the first surgical procedure to allow proper telescoping and reduce chances of migration.

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