Experience n Augmentation of Osteosynthesis With Double Plating in Complex Fractures of the Distal Femur

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Purpose: This study evaluates the use of double plating to increase fixation in complex, high-energy distal femur fractures that are at risk for nonunion.

Methods: 12 cases of patients from the San Rafael de Tunja Hospital are reviewed, from July 2021 to May 2023: 9 men (75%) and 3 women (25%). All are considered high energy in the distal femur, classified AO 33C3, osteosynthesis with a double plate and in some cases a cement spacer. In this review we follow up at 3 months and 12 months postoperatively evaluating the following variables: surgical site infection, range of mobility, scale of pain, degree of satisfaction with care

Results: Of 12 patients, 3 presented surgical site infection at 1 month and 2 cases at 3 months, which represents 25%, and the 3 patients corresponded to fractures open (2) floating knee (1) with femur fracture plus patella. The physical examination, 3 months postoperatively, showed that 7 of the patients (58%) had a range of less than 5° to 45° of flexion and 5 of the patients (42%) had a range of 0° to 70°. Bending: At 12 months, 3 patients (25%) continued with less than 5° to 50° of flexion; the other 9 patients achieved full extension 0° but none exceeded the range of 90°. Regarding pain at 3 months, applying the analog pain scale, we found 5 patients with moderate pain for the use of daily analgesics, 5 patients with mild pain without the use of analgesic, and 2 patients without pain. At 12 months, 1 patient requires permanent use of opioids due to moderate pain. A qualitative scale is used with 3 components: location, health professionals, and results of injury. At 12 months the degree of satisfaction was good in 9 patients (75%), excellent in 2 patients, and average in 1 patient.

Conclusion: Use double plating to minimize nonunion, residual deformity, and social reintegration of traumatized patients.