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6. Project Title: Fixation Technique for Periprosthetic Femur Fractures/ Outcomes after Surgical Management of Periprosthetic Fractures after Total Knee Arthroplasty

7. Project Description: Background: Numerous fixation methods have been described for the fixation of periprosthetic fractures, but there have been a very few reports in the literature regarding the use of locking plates and their outcomes for this fracture.

Specific Aim: The objective of the current study was to analyze clinically and radiographically, the results and the advantages of fixation of periprosthetic femoral fractures with a distal femoral locking plate.

Methodology: Forty consecutive patients with a periprosthetic femoral fracture were stabilized with a distal femoral locking plate. Patients were followed up at two, six, twelve, twenty-four and forty-eight weeks and yearly thereafter. They were assessed clinically and radiographically for union, delayed union, malunion, hardware failure, nonunion and infection.

8. Student's Role and Responsibilities: The student's role will be as a research assistant. As a research assistant, under our supervision, the student will learn to do literature review, study design, perform the study, collect data, analyze the findings, and help in writing a paper. Through this procedure, we want to give the student the ability to creatively think in clinical research and practice, and increase student's interest in research to make them well qualified physicians.

9. Special Qualifications: No special qualifications required.