

## VERTICAL WIRING TECHNIQUE FOR INFERIOR POLE FRACTURE OF PATELLA

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**Introduction:** Inferior pole fracture of the patella accounts for about 5% of all patella injuries. The method of treatment varies depending on multiple factors. Traditionally the options of treatment include a partial patellectomy or a pull-through suture technique. Recently, vertical wiring technique was introduced that promised better biomechanical and clinical outcome.

**Methodology:** Our patient is a 62 year old female with underlying diabetes mellitus, hypertension and dyslipidemia. She presented with right knee pain and swelling after a fall due to slippery floor. Radiograph showed inferior pole fracture of the right patella. We proceeded with open reduction and vertical wiring of the patella. Intra-operatively, 3 wire tracts were created using a drill bit size 2.0 mm from the antero-superior aspect to the postero-inferior aspect of the proximal patella fragment. Then, 3 wires size 1.2 mm was pass through the hole created then pass posterior to the inferior pole fragment, through the patella tendon and tightened anteriorly. A cerclage wire size 1.6 mm was applied to the patella afterwards. Patient was placed on a temporary cylinder slab for 3 weeks then was allowed partial weight-bearing and range of motion exercise. She is currently progressing well with physiotherapy.

**Discussion:** Patient was able to weight bear 3 weeks after discharge with full range of motion. Vertical wiring technique for patella fracture has a promising biomechanical result in comparison to partial patellectomy and pull-through suture. Clinically, it allows the preservation of patella tendon length and avoided long term immobilization. Our patient shows good early outcome thus far.

**Conclusion:** Vertical wiring technique allows for good clinical and functional outcome and we would support its use in this kind of patella fracture.