A Unique case of knee Reconstruction

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A 50year old Army Man presented to the OPD at Daffodils Hospital with a painful knee. He entered with a walker and could not bear weight on the knee due to pain and instability of the knee.

Upon enquiring about the history, he gave a sad history of being knocked down by a speeding two wheeler, a year ago. He had a severe injury to his knee and was rushed to the local Public hospital, where he was treated.

Initially he was stabilised and finally taken up for limited internal cum external fixation of the leg.

Some how the operation did not work for him and he was unable to ambulate for nearly a year.

He sought medical help with his office and searched for someone who could help him.

When he heard about reconstruction services in the Daffodils hospital, he immediately decided to pursue the course.

When we investigated him, his initial x ray revealed an incongruently reduced knee joint with malalignment of the leg bone. His knee joint was highly unstable and moved with the slightest force applied.

Fig 1: Xray showing the malunited fracture of the proximal tibia and fibula bone.

We decided to investigate further, so we got a three dimensional high resolution CT scan done, which revealed the details of his problem.

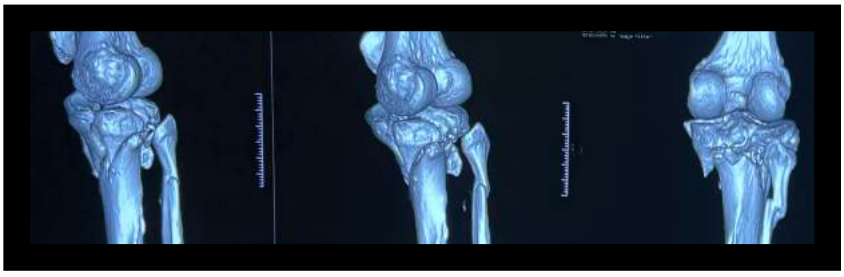

Fig 2: 3D CT scan showing the complexity of the problem

After a thorough planning and pre operative preparation, we managed to reconstruct his knee in a massive surgery involving 2 hours of operating time.
The procedure involved an extensive incision, meticulous dissection and calculative osteotomies. We had to technically recreate the original fracture and put everything in place from scratch. We had the advantage of a tourniquet and an electric cautery which limited blood loss and the advantage of a C arm with live imaging, so we could visualise our steps so as to achieve precise reconstruction of the joint.

Fig 3: An intra operative image showing how the fracture is being reconstructed with tools and wires.

The reconstructed bone was finally held in place with two titanium plates and locking screws. After confirming the knee function and stability, the incision was repaired from the bone, muscle upto the skin.
The Post operative result was very satisfying and the patient had a return of his function within two weeks.

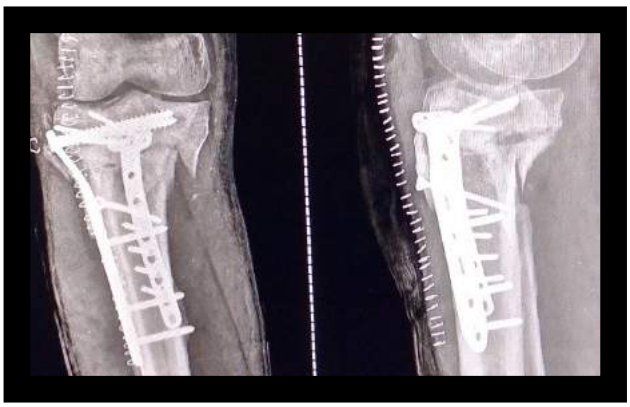

Fig 4: Post operative XRAY showing the congruity of the the knee joint in both angles.