

Combination of Cartilage Regeneration and High Tibia Osteotomy in treating Medial Femoral Cartilage Injury in Elderly Patient

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INTRODUCTION:

Articular cartilage injury is difficult to manage due to its limited healing potential. Here, we share our experience in treating elderly patient with traumatic left knee medial femoral condyle injury associated with mild varus malalignment of the knee.

REPORT:

Mr R, 62 years old male, presented with left knee pain and recurrent swelling for the past 6 months after a fall. He denies any knee instability or locking symptoms. The pain is persistent despite regular physiotherapy and analgesic. Examination shows mild varus malalignment of both knees and localized tenderness at medial femoral condyle. Other examinations of the knee are unremarkable. X-ray shows reduce medial knee joint space bilaterally and medial deviation of mechanical axis both legs indicating varus malalignment.

Diagnostic arthroscopy of left knee was performed and noted Grade IV medial femoral condyle cartilage injury measures 15x15mm.

Six weeks later we proceeded with nanofracture, hylofast implantation combined with bone marrow aspiration from iliac bone and open wedge high tibia osteotomy and plating.

At 3 months post operatively, he achieved full range of motion left knee and no pain during walking and he is able to do his daily activity happily.

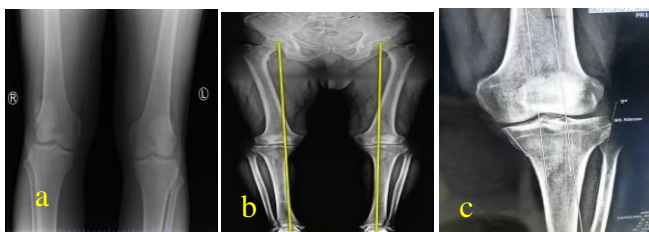


Figure 1: a) Both knee radiograph, b) Preoperative x-ray show mechanical axis left lower limb deviated medially, c) 5 degree of varus malalignment.

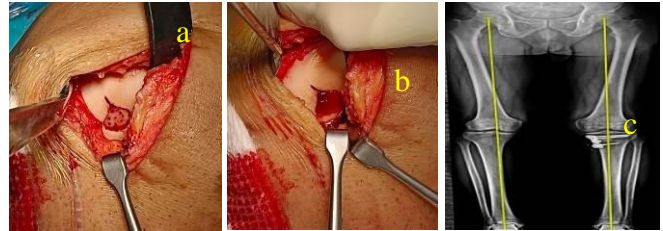


Figure 2: a) Nanofracture of medial femoral cartilage, b) Post hyalofast + marrow implantation, c) Post operative long leg view showing improvement of mechanical axis of left lower limb.

CONCLUSION:

Combination of cartilage regeneration and high tibia osteotomy is a good option in treating medial femoral condyle injury which associated with varus mal-alignment. The aim of correction of varus malalignment of the knee is to distribute equal load to both compartment and at the same time to allow the medial femoral cartilage to heal.

REFERENCES:

1. Role of high tibia osteotomy in cartilage regeneration- Is correction of malalignment mandatory for success? Mathew Dhanaraj 1, Melvin K L Tan 2 (PMC Journal)