

## Case report: Severe residual flexion contracture in total knee arthroplasty – she’s doing well!

<sup>1</sup>Wan Salam,WNA; <sup>1</sup>Md Hassan,MN; <sup>1</sup>Ibrahim,MY

<sup>1</sup>Hospital Raja Perempuan Zainab II

### INTRODUCTION:

Severe fixed flexion deformity(FFD) is a challenge in total knee replacement(TKR). Residual FFD post TKR more than 10 degrees associated with poor functional outcomes<sup>1</sup>. We are reporting a case of severe residual FFD following TKR but regains her knee full extension with manipulation and physiotherapy.

### REPORT:

A 22-year-old female, with underlying rheumatoid arthritis, presented with a 9-month history of left knee pain with FFD was more than 45°.

No serial knee extension casting done prior operation. Intraoperatively, we found that her left medial tibial plateau was slightly larger than lateral side hence right-side asymmetrical tibia plate was used. Iliotibial tract and posterior capsule released after bone cuts. Further 2mm distal femoral bone resected and further posterior capsule released over the posterior proximal tibia. Unfortunately, there was still about 30° FFD persist. No further distal femoral bone resection permissible due to short posterior femoral condyle. Posterior stabilized implant was used.

Post-operatively, she was put on full knee extension splint for 1 week and started on physiotherapy(passive stretching, quadriceps strengthening and knee ROM exercises). At 3 weeks post-operation, her residual FFD was 10°. At 6 weeks post-operation, she was able to extend fully the left knee but loss her knee flexion. The ROM was between 0° to 10° flexion.

First left knee manipulation under anaesthesia(MUA) done at 6 weeks post-operation. The ROM improved 0° to 60°. Later, a second MUA done at 5 months post-operation. Currently, at 1-year post-operation, she is able to

move the knee between 0° to 100° with a stable knee.



Figure1: Left knee x-ray(lateral view) post TKR(on knee extension splint) shows residual flexion 33°



Figure2: Left knee x-ray(lateral view) prior 1<sup>st</sup> MUA

### CONCLUSION:

Severe residual FFD does not necessarily require extensive soft tissue release and excessive bone cut in order to get full knee extension intraoperatively. It can be combined with physiotherapy and manipulation post-operatively.

### REFERENCES:

1.Ritter et al.The role of flexion contracture on outcomes in primary total knee arthroplasty.The Journal of Arthroplasty.2007;22:1092-1096