# CLINICAL MEET

DEPARTMENT OF ORTHOPAEDICS

# Robotic Total Knee Arthroplasty In Bilateral Severe Valgus Knee

Dr Ketan Kulkarni
Resident
Department of Orthopedics

- 71 year old female came with complaints of pain and deformity over bilateral knee since 5 years.

- On Examination

No fixed flexion deformity

Bilateral genu valgum present

Hyperextension of 10 degrees

Flexion of 80 degrees on left side and 100 degrees on right side

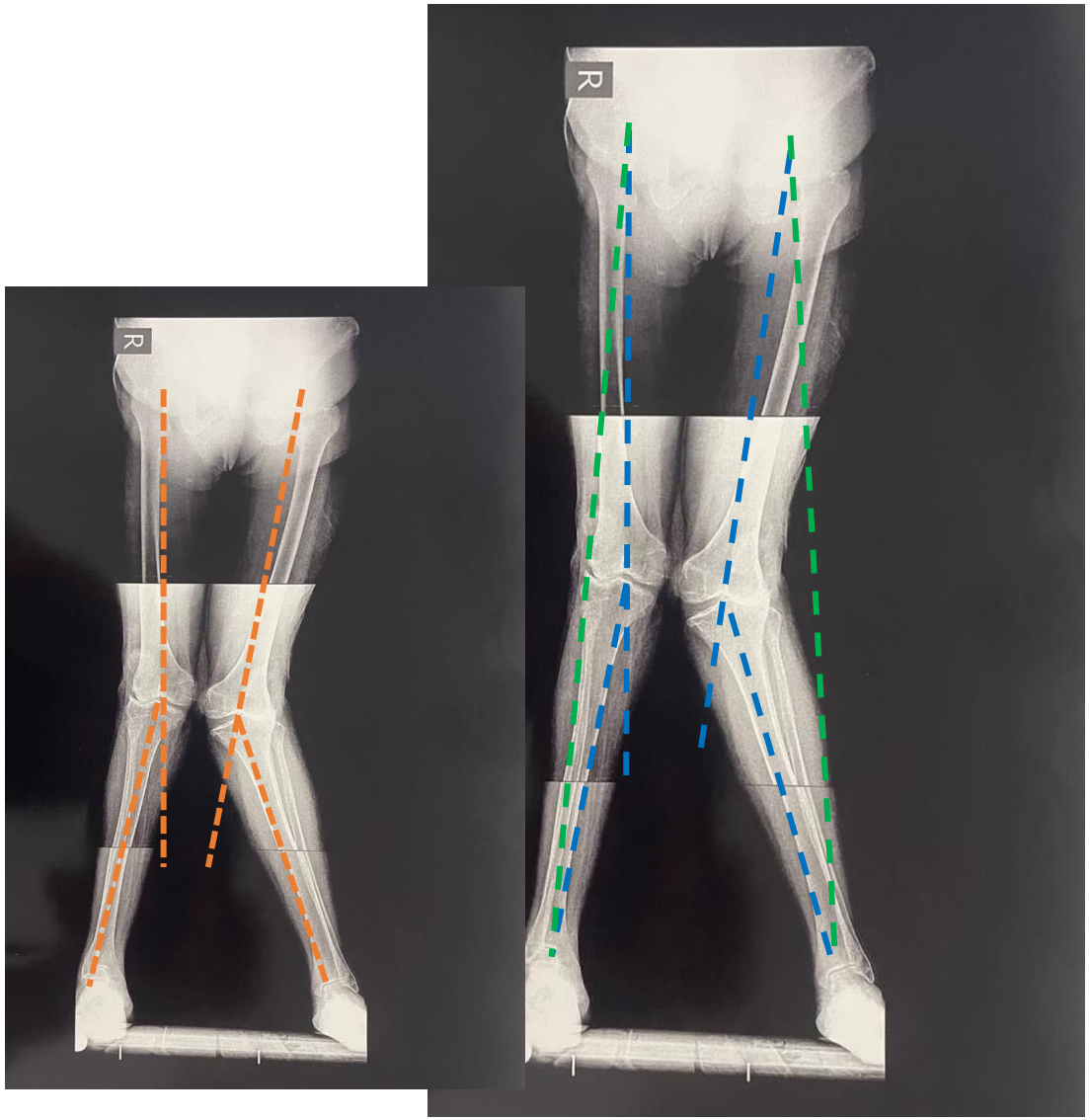
**X-Ray is suggestive of:**

1. Bilateral genu valgum
2. Kellgren lawrence classification type IV
3. Lateral compartment has obliteration of joint space
4. Subchondral sclerosis
5. Osteophyte formation
6. Medial side opening

Q Angle is 26.3 degrees on left side and 18.6 degrees on right side

Intermalleolar distance was 18 cm (normal is <6cm)

Anatomical Axis Mechanical Axis

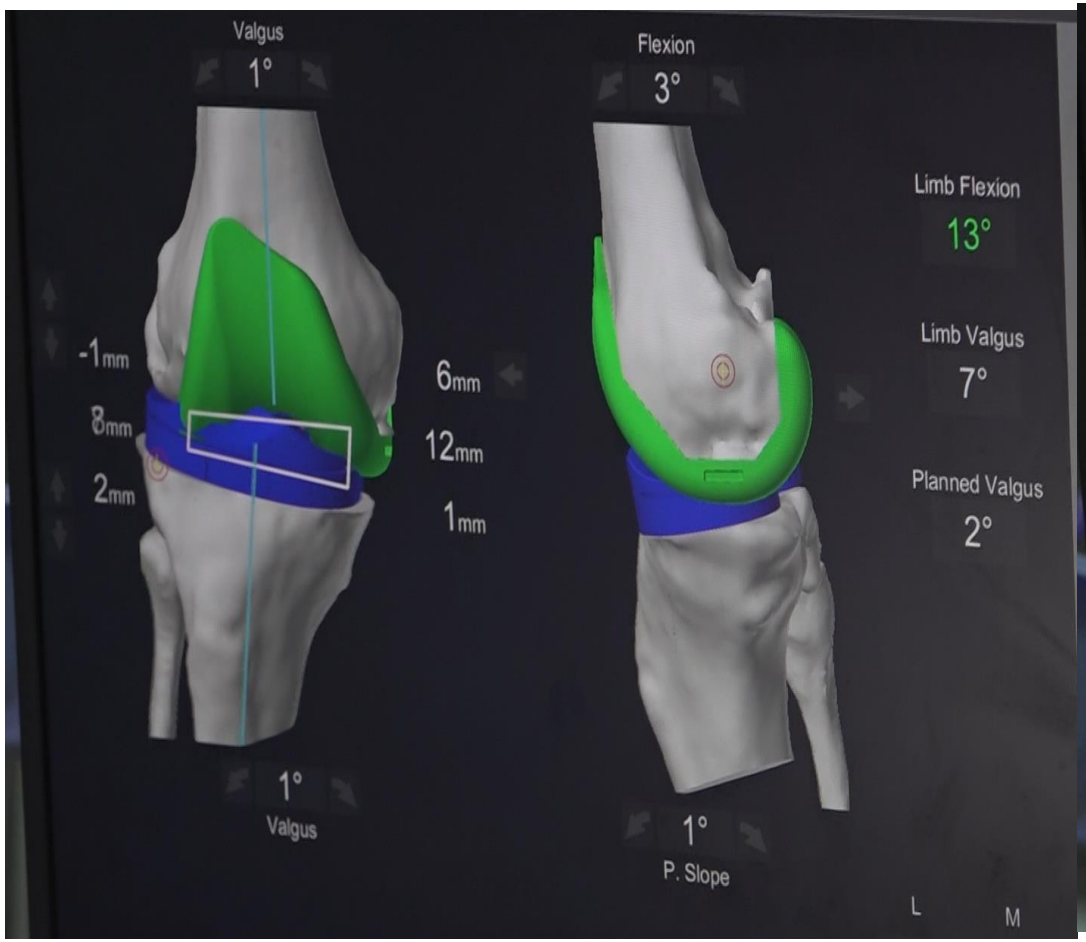


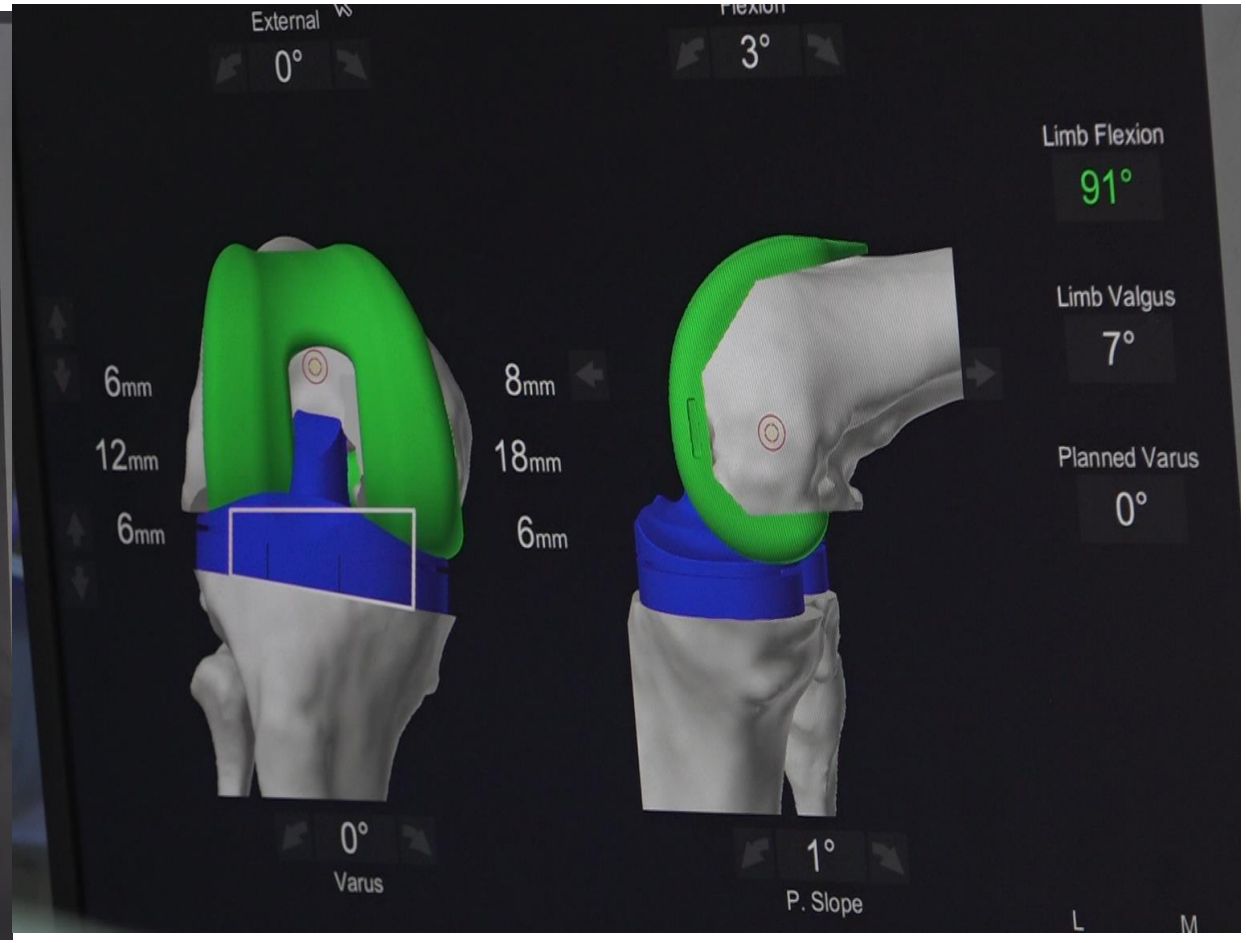
# Gait shows a bilateral valgus thrust gait

Left

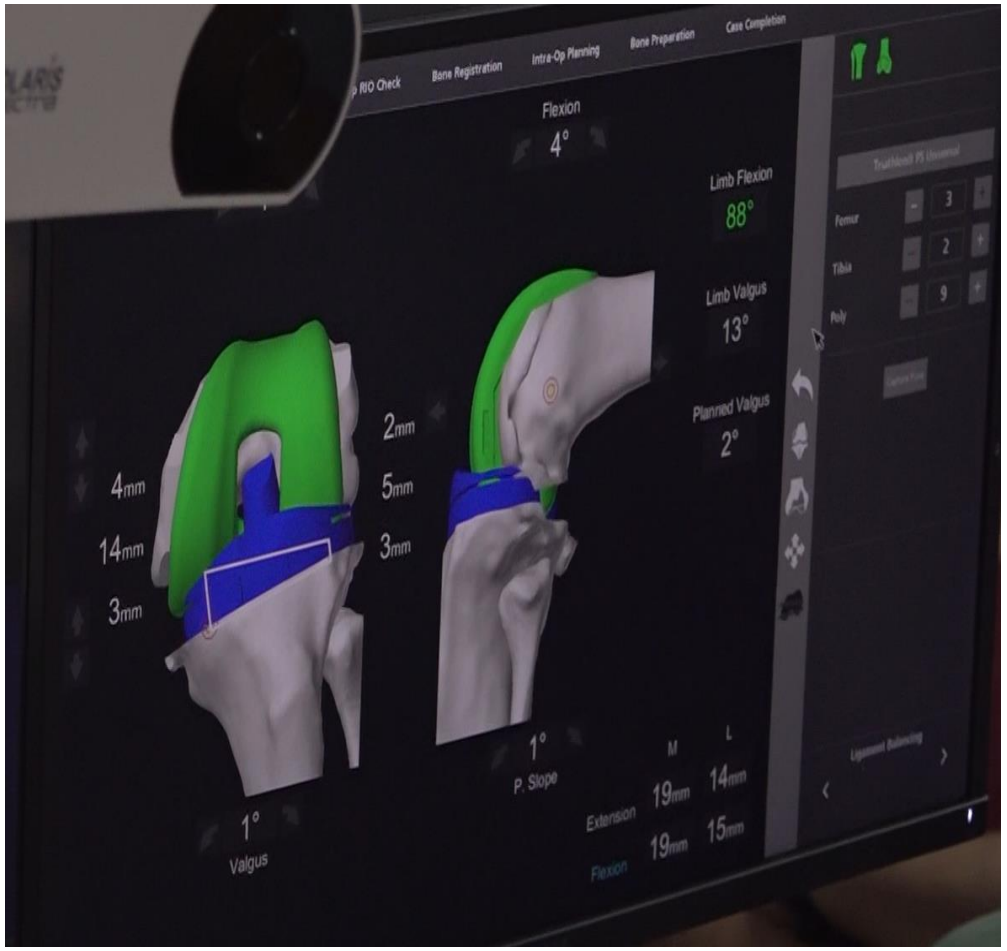
Right

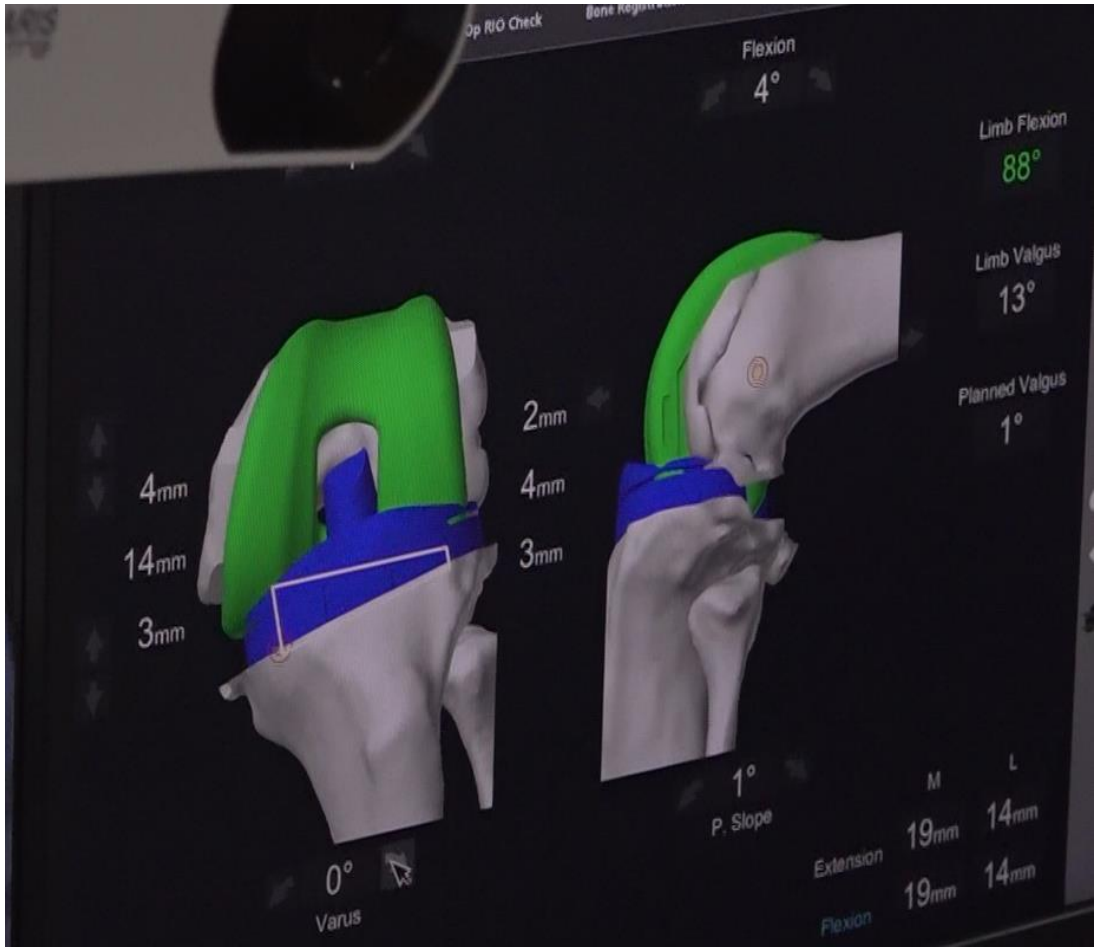
# Pre-operative planning of right side



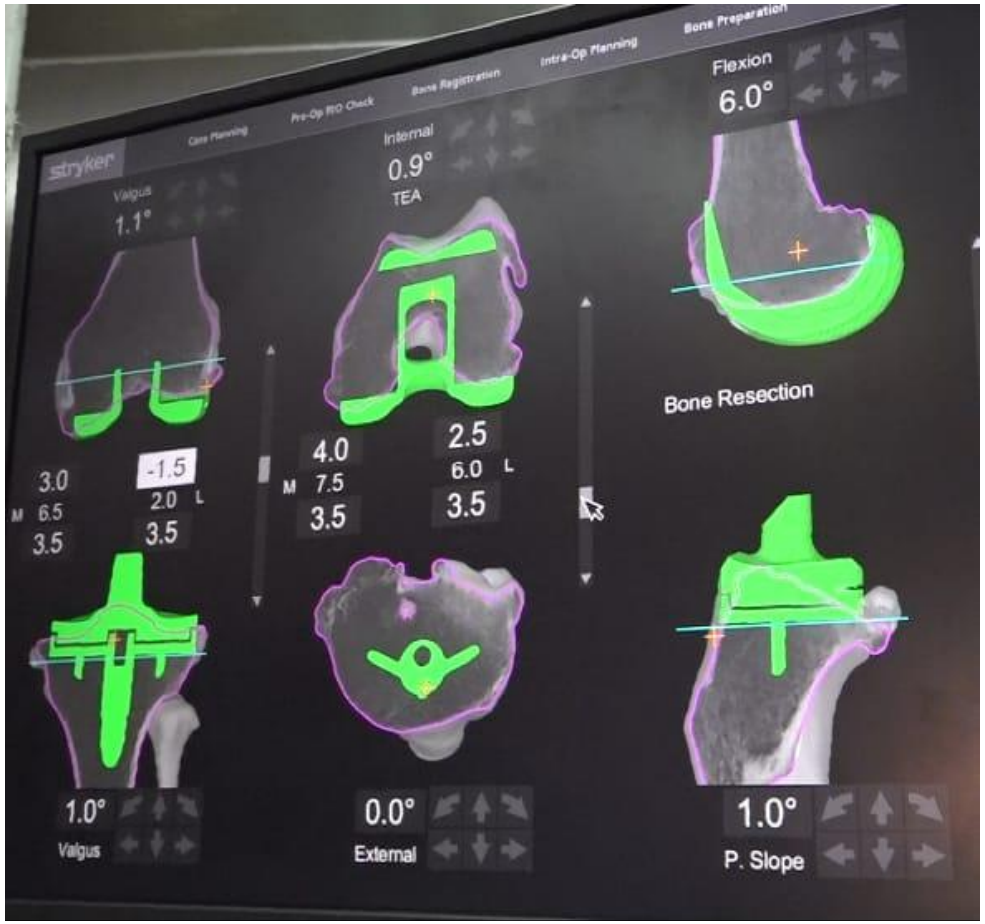



# Pre-operative planning of left side

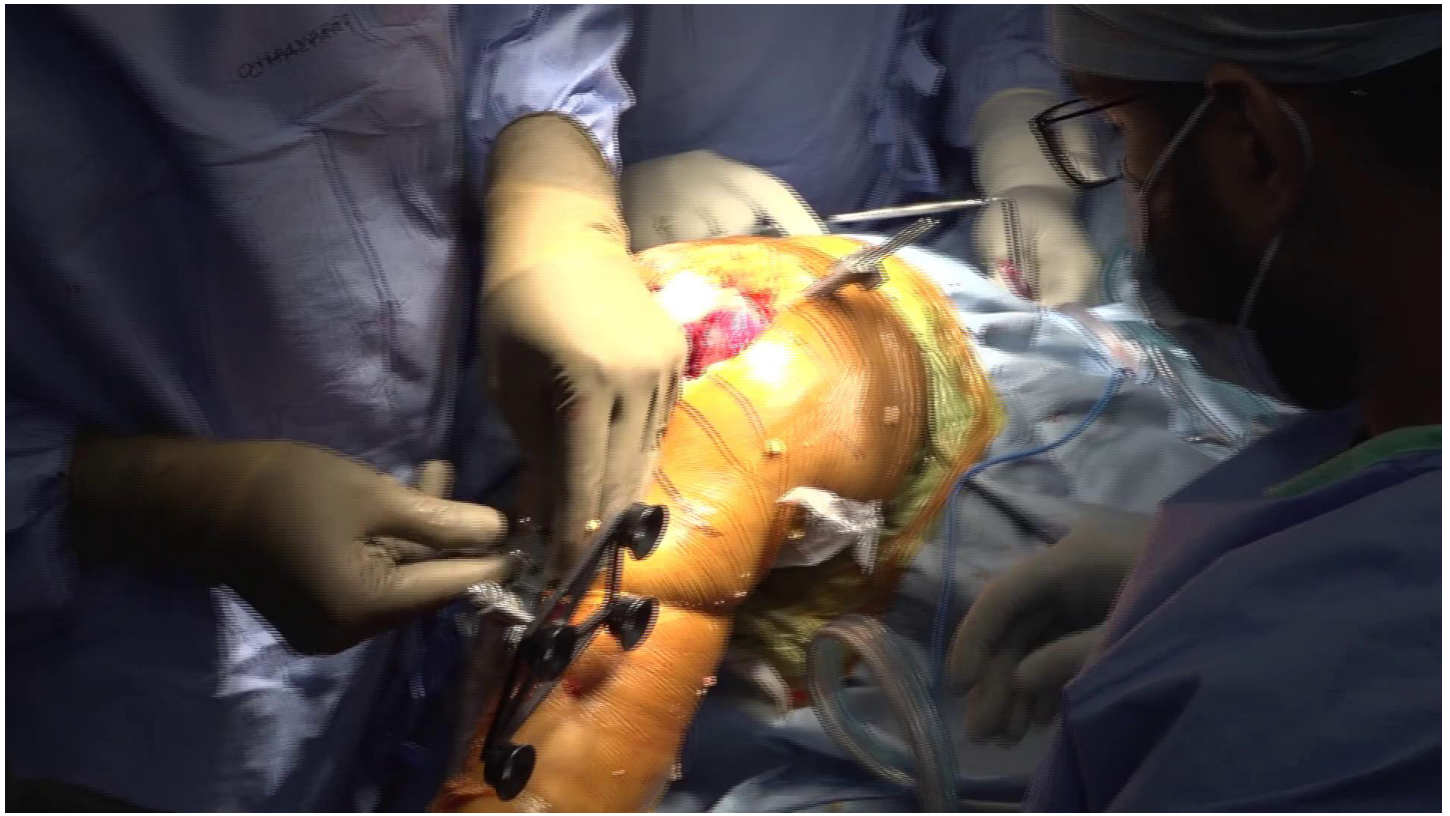


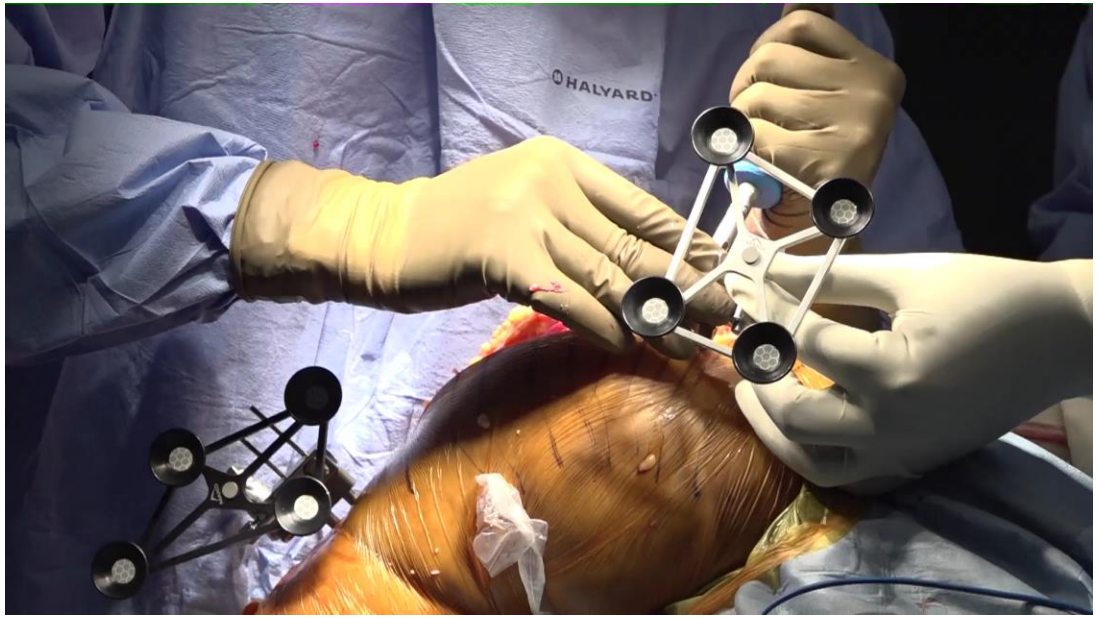
# Depicts The Deformities And Imbalanced Knee

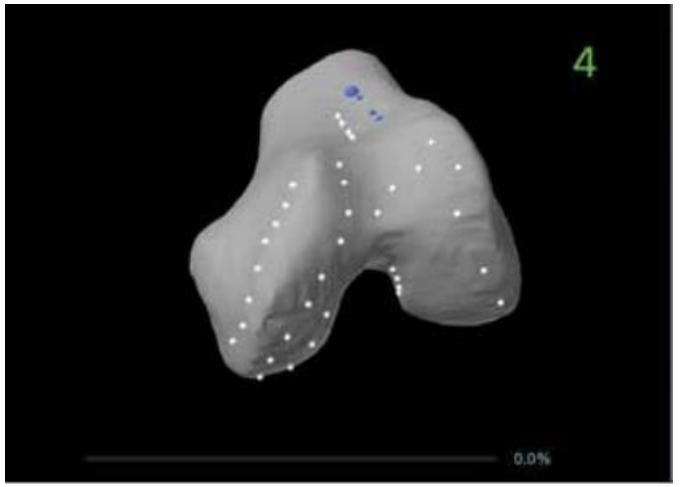


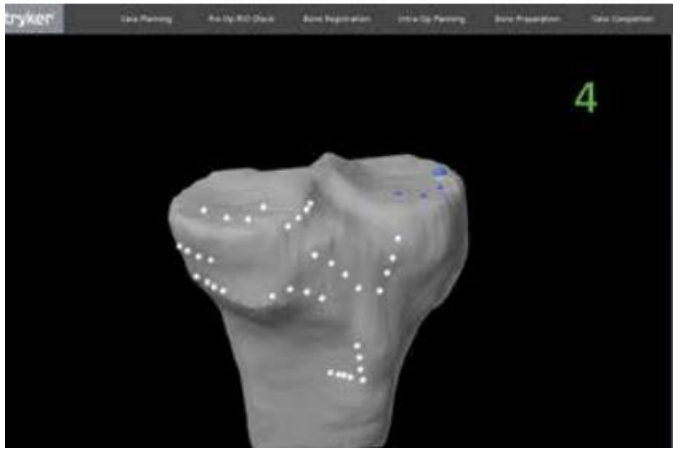
# Insertion of Navigation Array



# Registration

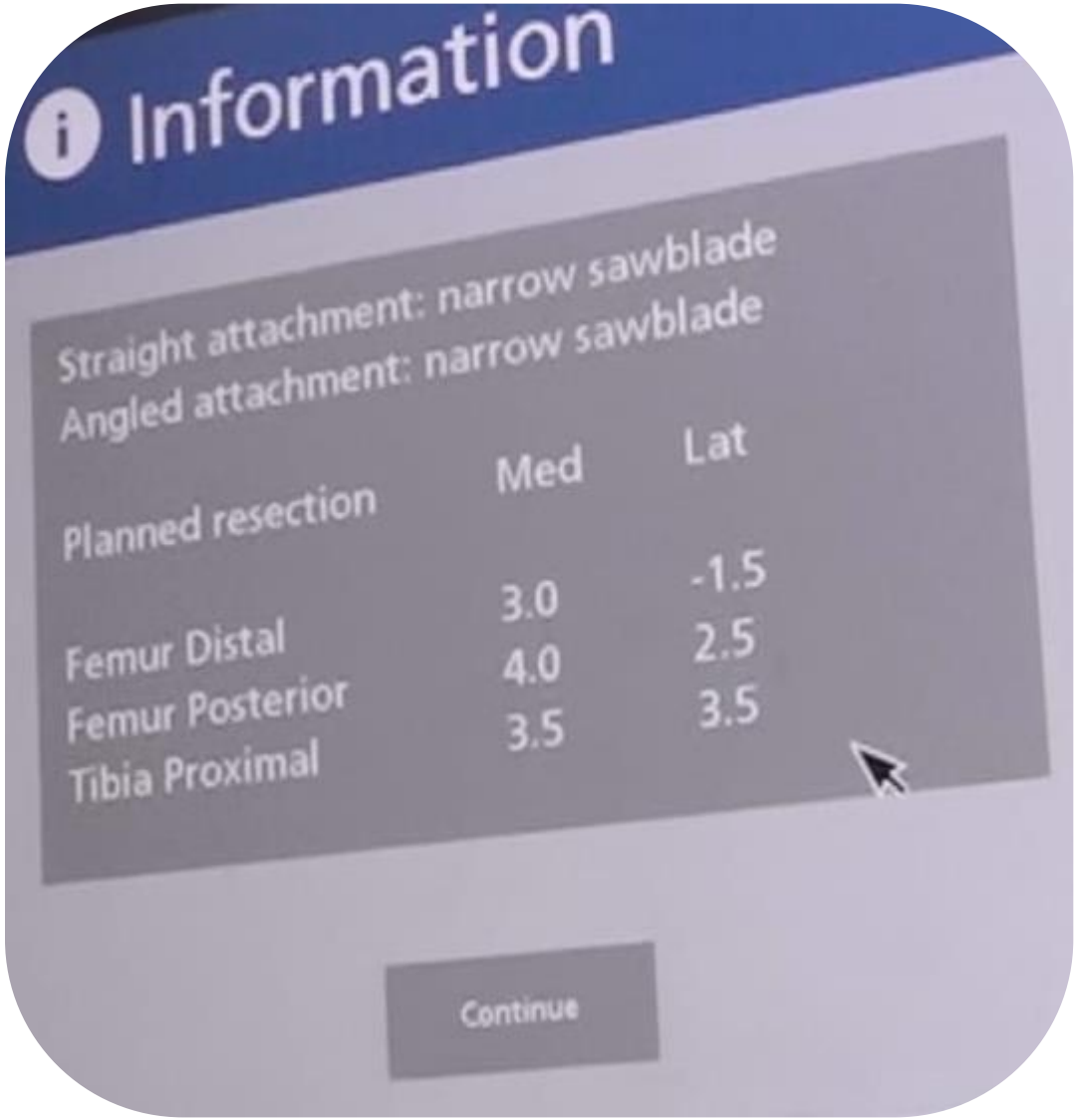


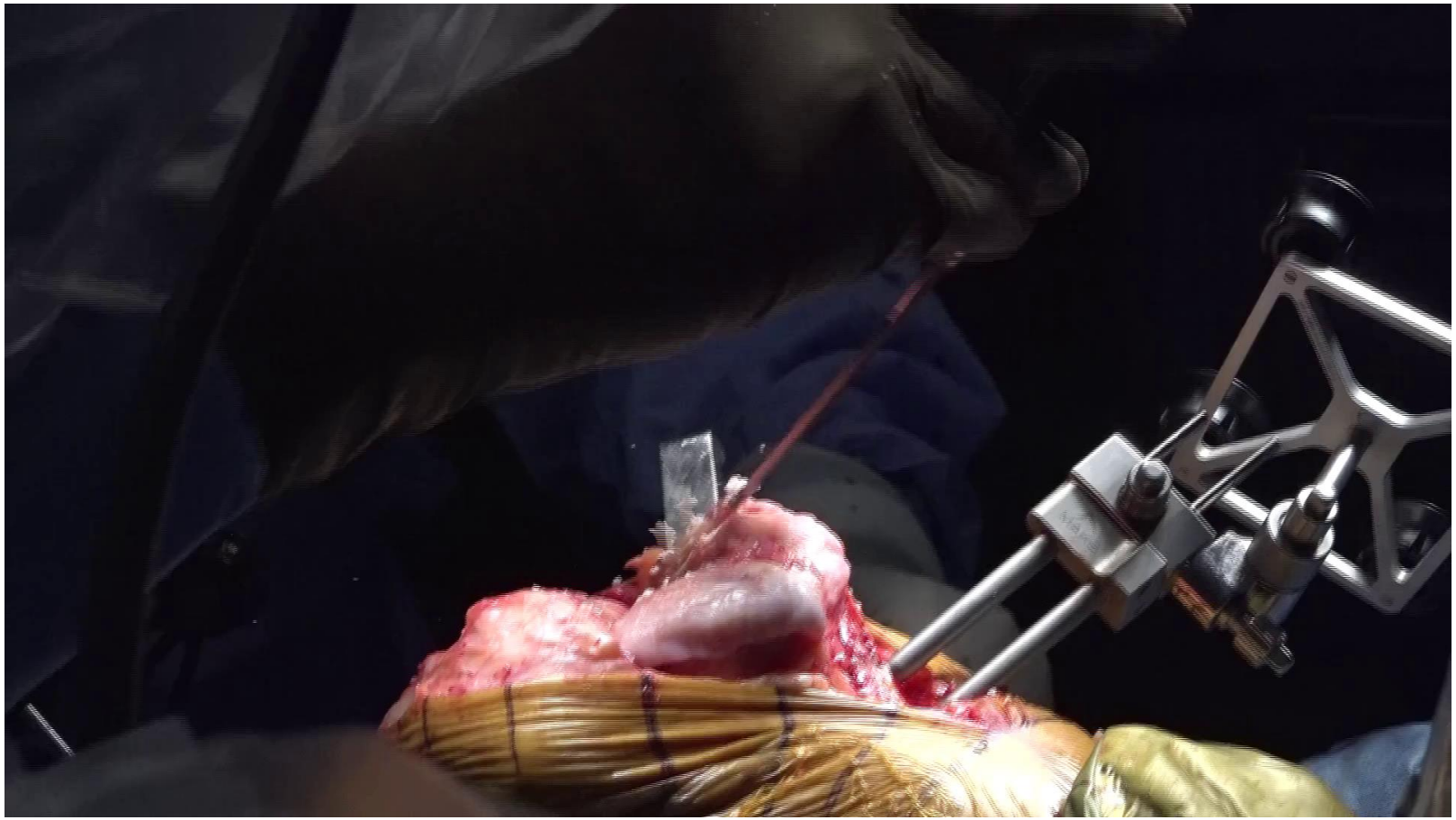



# Validation of Robotic Arm Done

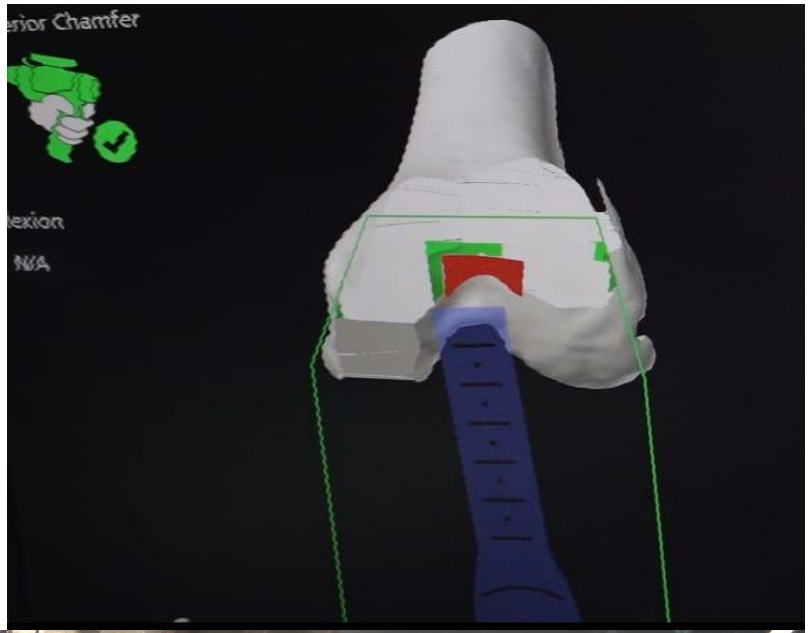
# Finalised Femoral And Tibial Cuts

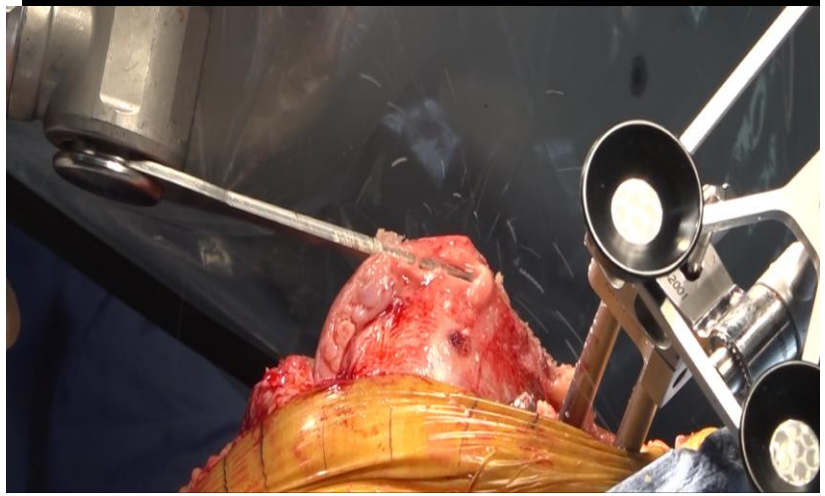


# Distal Femur Cut



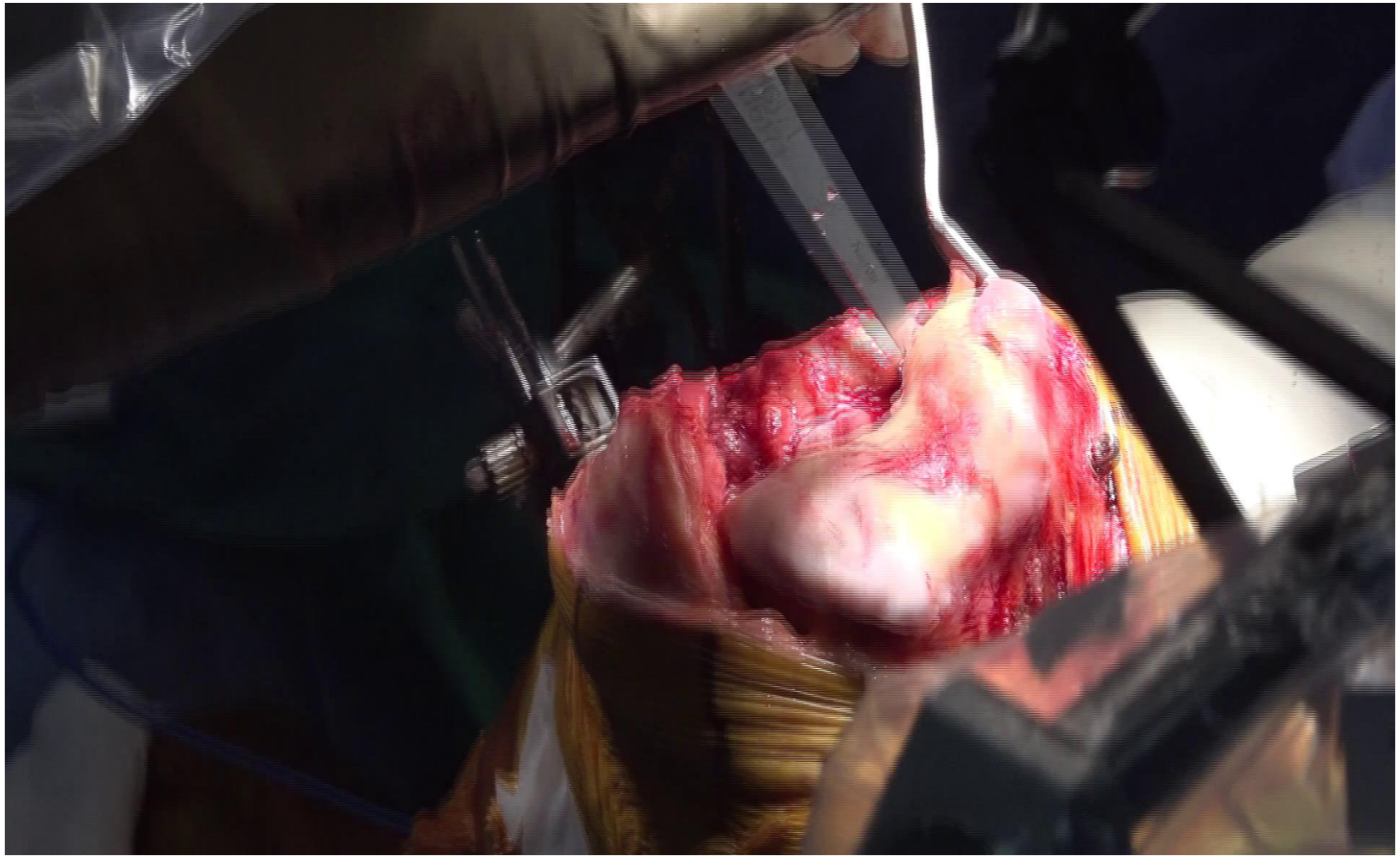
# Anterior Chamfer Cut



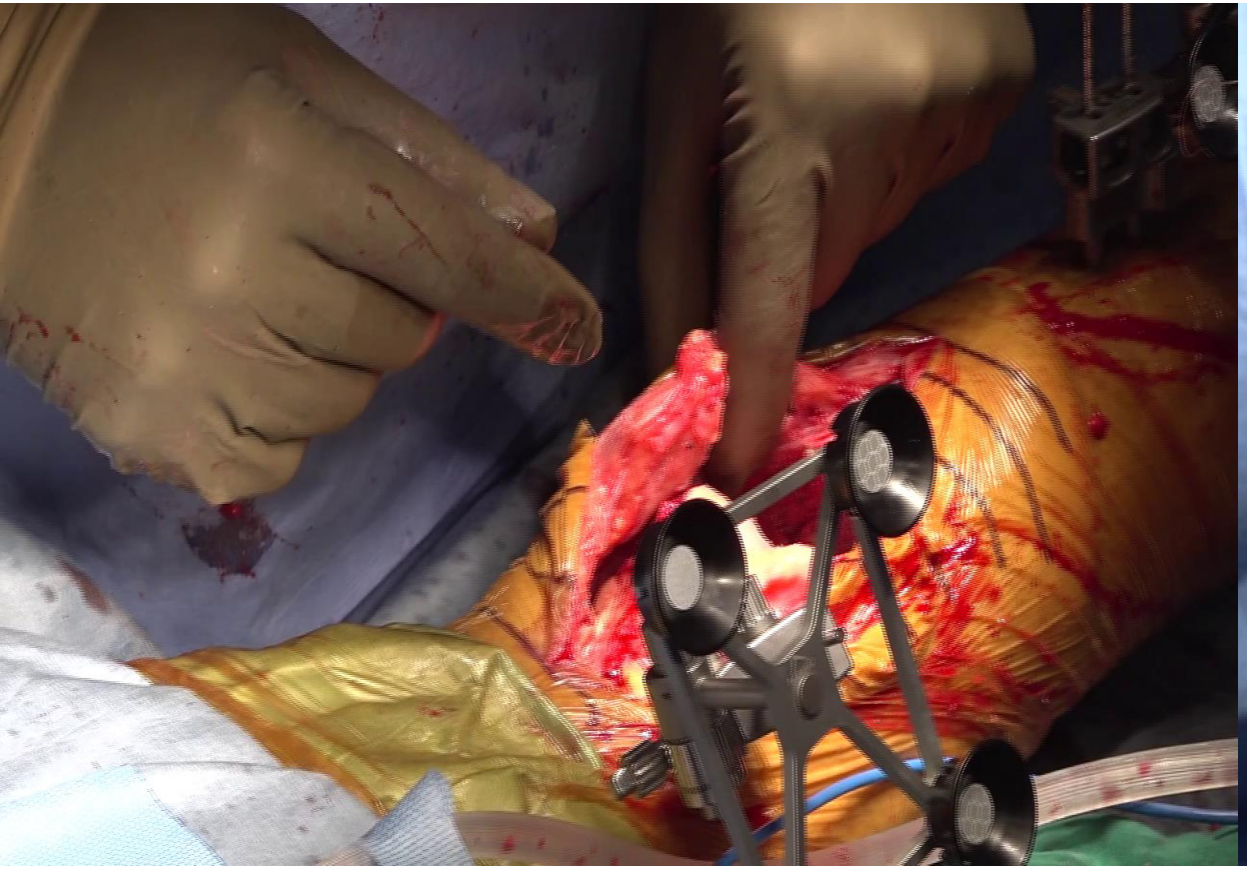



# Posterior Chamfer Cut

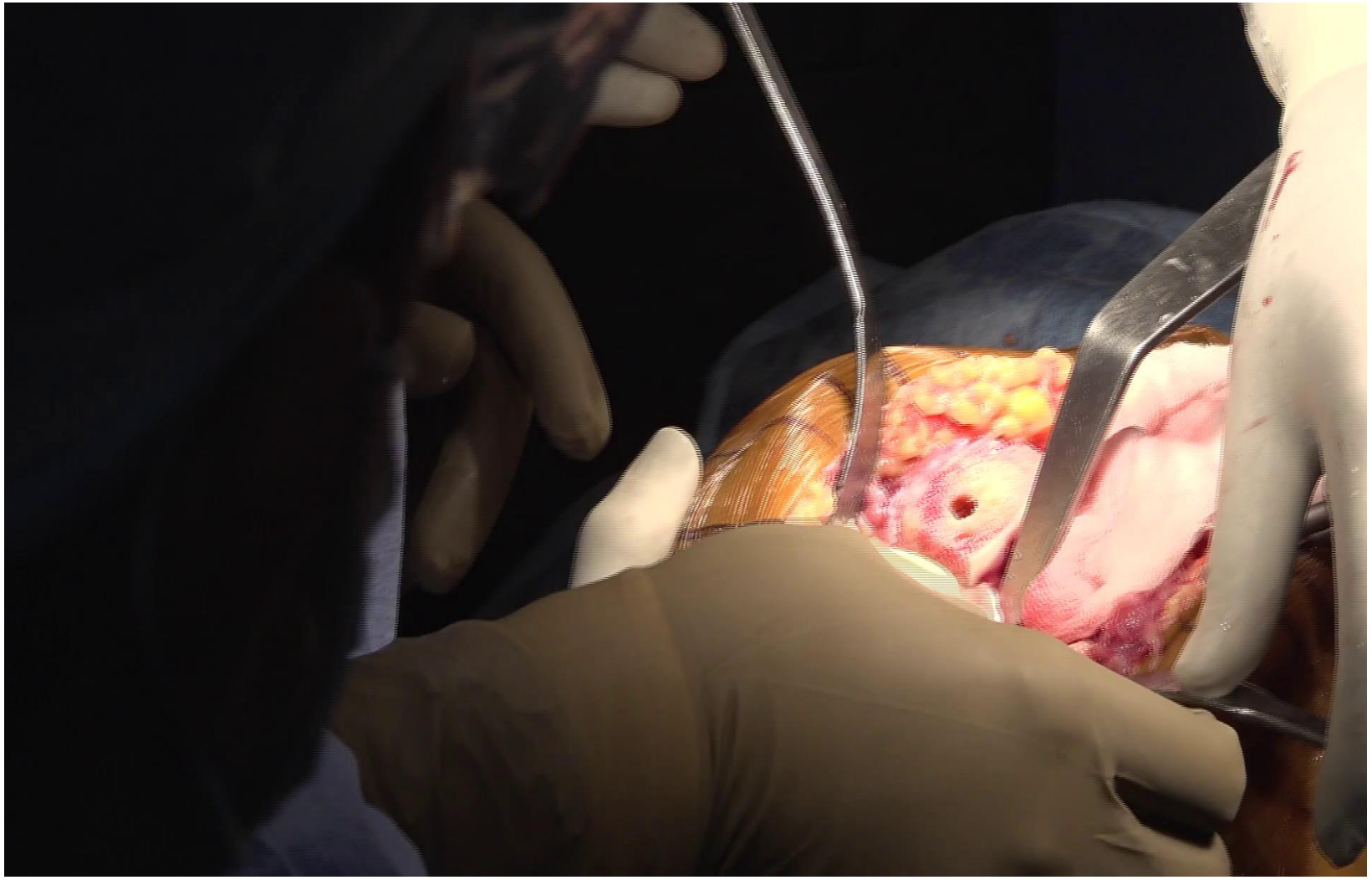
# Tibial Cut

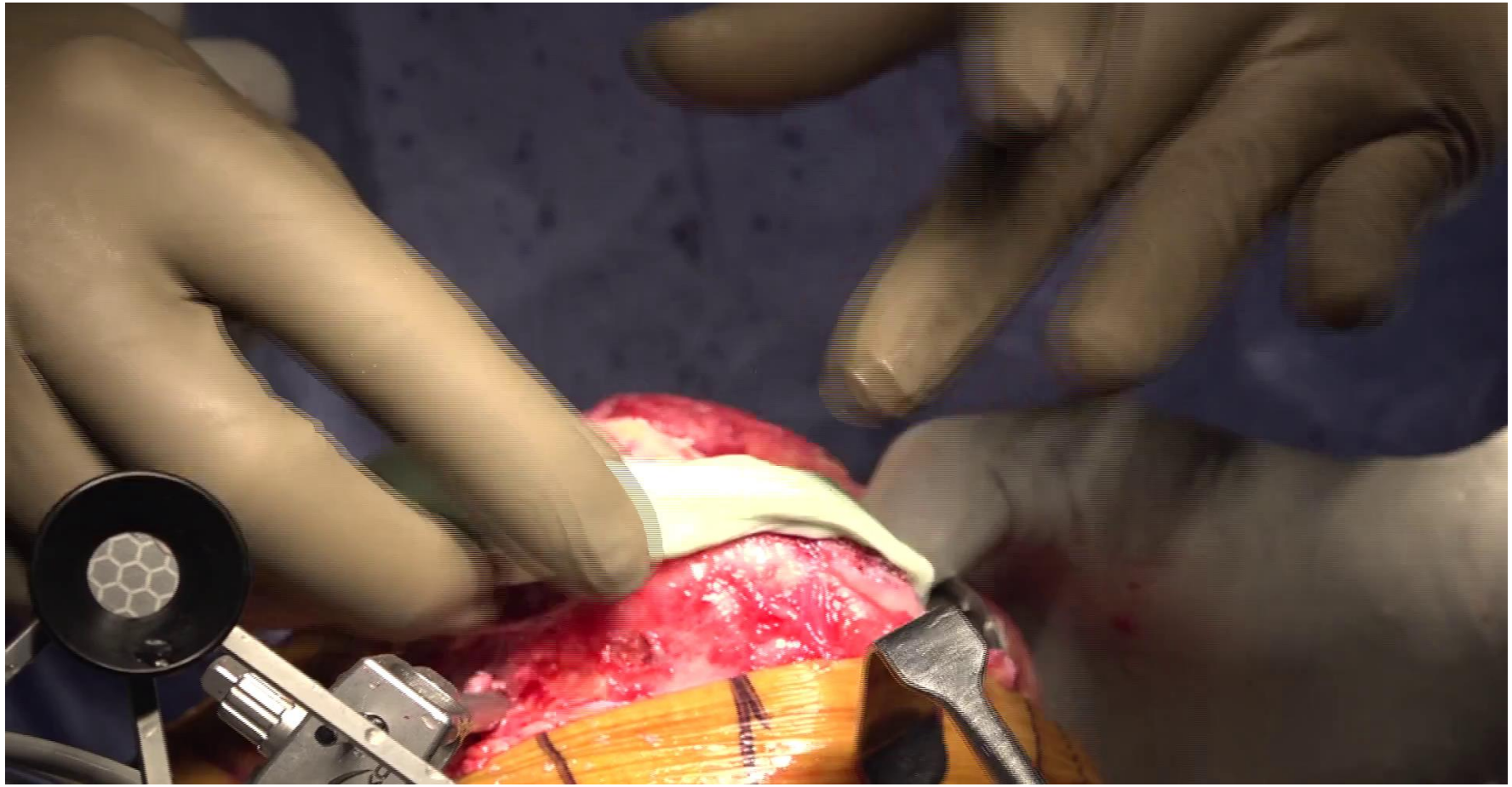
# Soft Tissue Balancing By Pie Crusting



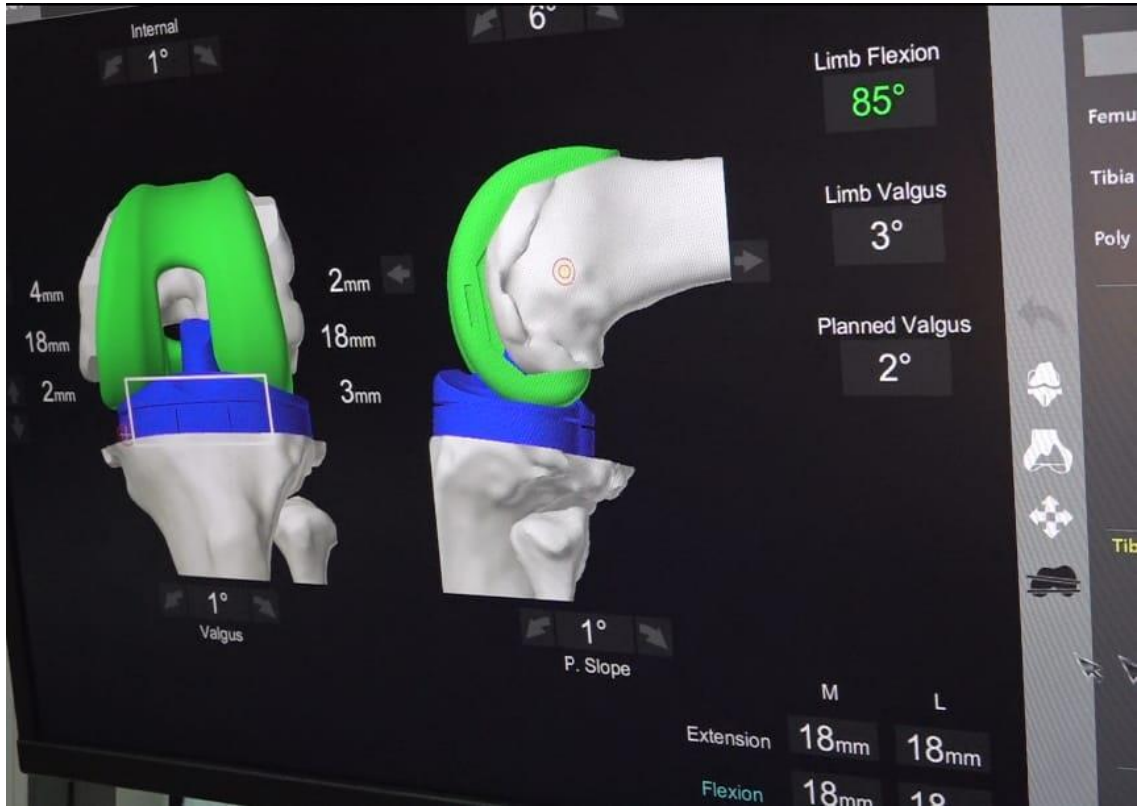
# Cementing And Tibia Tray Insertion

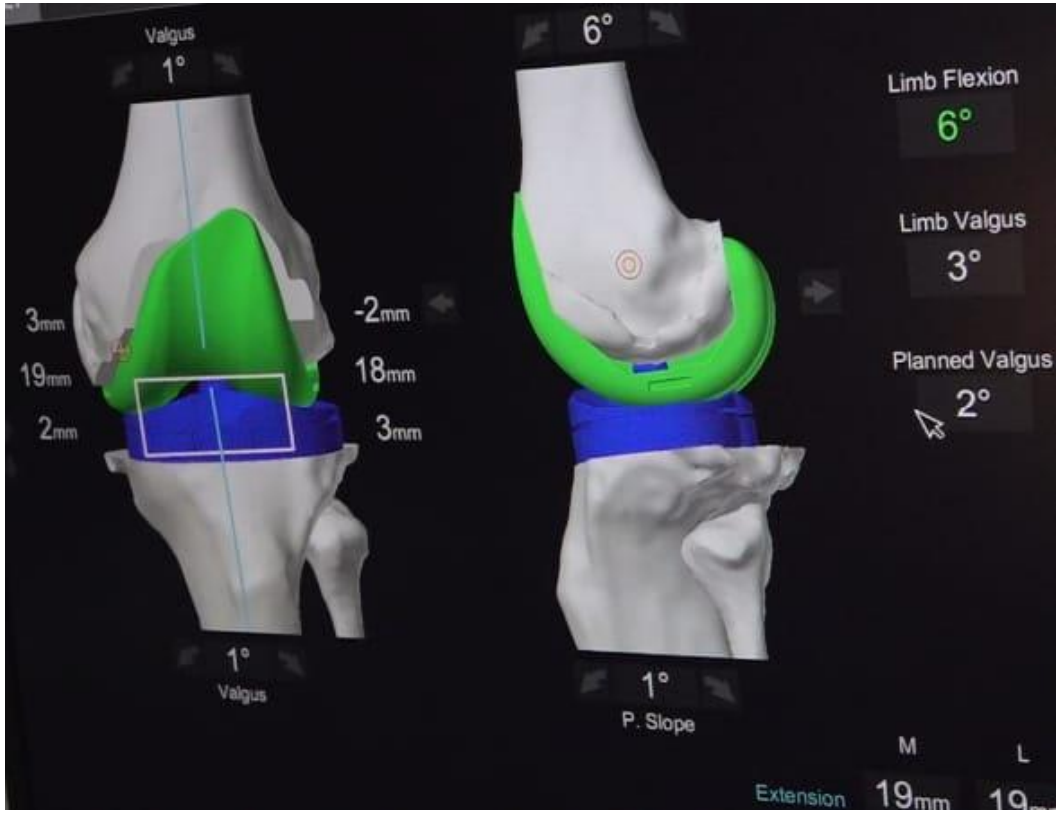


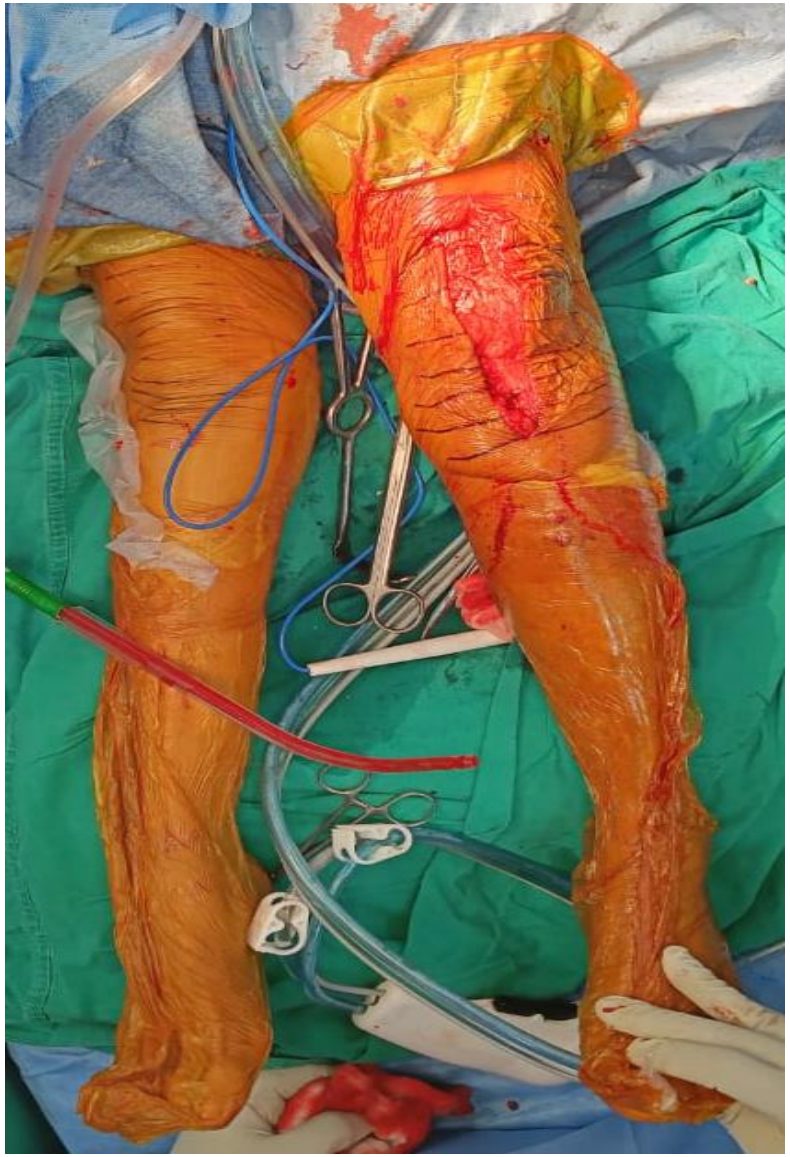
# Femoral Component Insertion

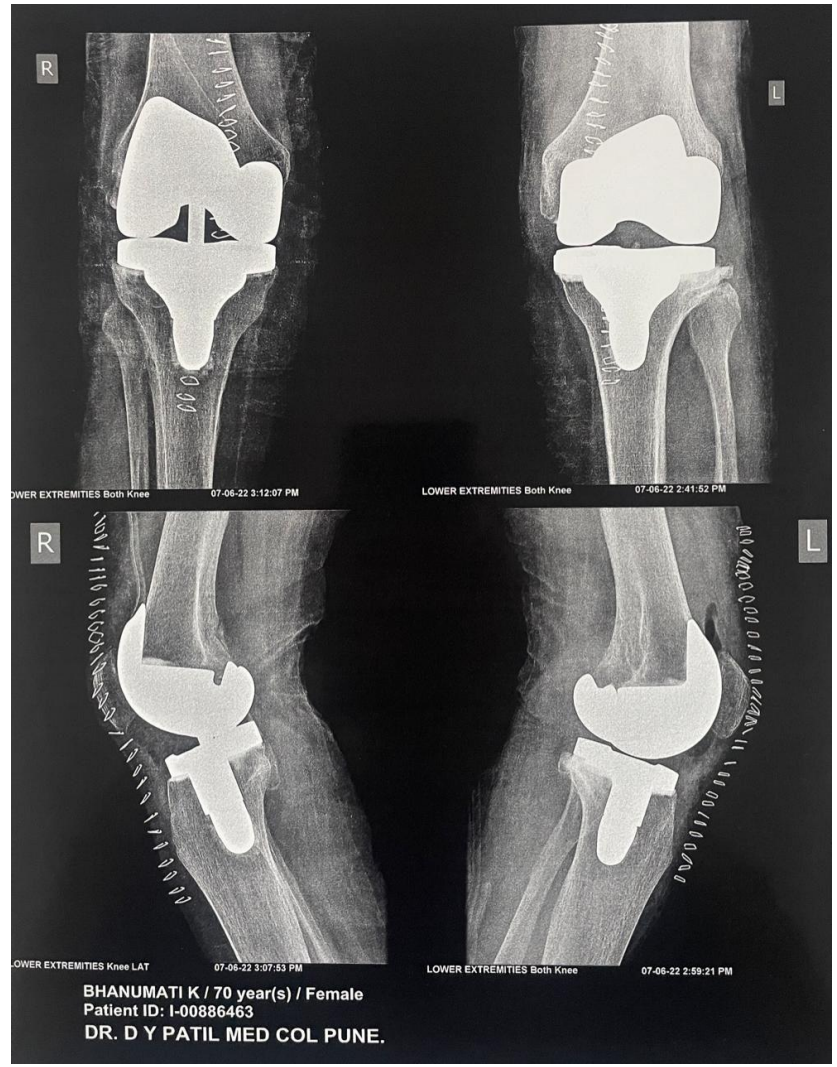


# Post Implantation Confirmation of Flexion And Extension Gap






R
L
OWER EXTREMITIES Both Knee 07-06-22 3:12:07 PM
LOWER EXTREMITIES Both Knee 07-06-22 2:41:52 PM
R
L
LOWER EXTREMITIES Knee LAT 07-06-22 3:07:53 PM
LOWER EXTREMITIES Both Knee 07-06-22 2:59:21 PM
BHANUMATI K / 70 year(s) / Female
Patient ID: I-00886463
DR. D Y PATIL MED COL PUNE.

# 3 months post-op

# Knee ROM

Walking video

# Advantages of Robotic TKR

- It is a CT based patient specific preoperative planning for accurate cuts and well placement of implants
- Uses bone balancing
- A precise cut, well alligned, balanced knee
- Less complications, less pain and early return to function

# Thank You