

# Partial Knee Replacement: Is my Knee suitable? Am I suitable?

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GP Study day 24<sup>th</sup> April 2021



# AGENDA



Background

Options

Cases

Questions

# Why Partial? Just Replace It All



# Why Partial? Just Replace It All



# Why Partial? Just Replace It All

- Improved
  - Function
  - ROM
  - Proprioception
  - Kinematics
  - Pain relief
- Quicker rehabilitation
- Lower complications
  - Thromboembolism
  - infection
- Satisfaction
  - The unhappy knee
- Economics
  - Health economics
  - macroeconomics

# Just Do Partial In Everybody?

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- Economics
  - Health economics
  - macroeconomics
- Inappropriate indications
- Progression of disease



# When?

- Isolated disease
- Exercise-related pain
- Skeletally mature
- Uninvolved compartments normal
- Correctable deformity
- Stable knee with intact ACL
- BMI?
- Well motivated
- Well informed
- Computer navigation



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- Isolated disease
- Exercise-related pain
- Skeletally mature
- Uninvolved compartments normal
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- BMI?
- Well motivated
- Well informed
- Rest pain
- Inflammatory arthritis
- Malalignment if considering minimally invasive
- Sedentary lifestyle
- Unstable knee

# Non-Surgical Options

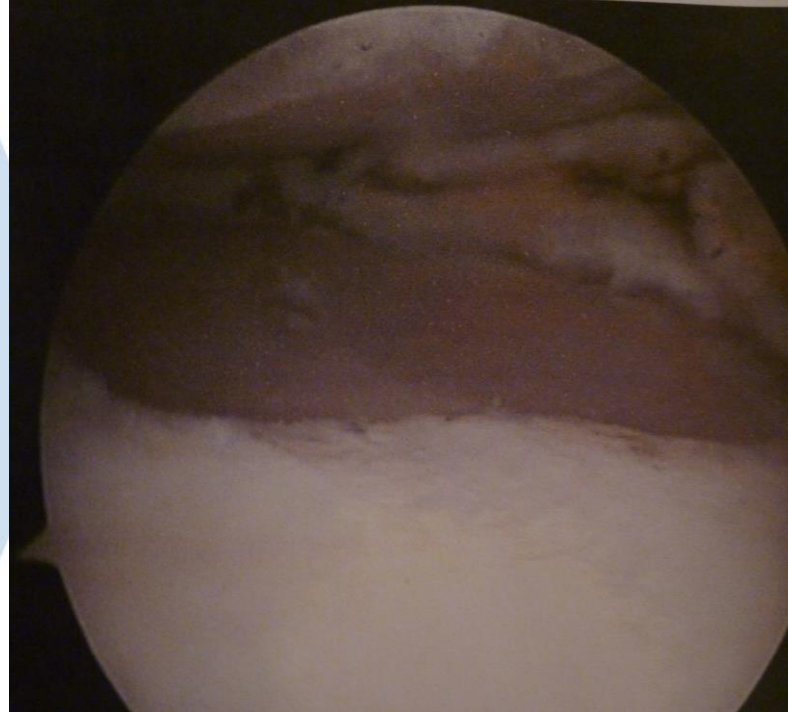
- Weight loss / lifestyle
- Physiotherapy and conditioning
- Bracing
- Supplements
- Injections

# Surgical Options

- Weight loss / lifestyle
  - Physiotherapy and conditioning
  - bracing
  - Supplements
  - Injections
- Arthroscopic debridement
  - Off-loading procedures
  - Arthroplasty

# Arthroscopy

- Lavage
- Meniscectomy
- Chondroplasty
- Synovectomy
- Osteophyte excision
- Removal of loose bodies
- Adhesiolysis



# Arthroscopy

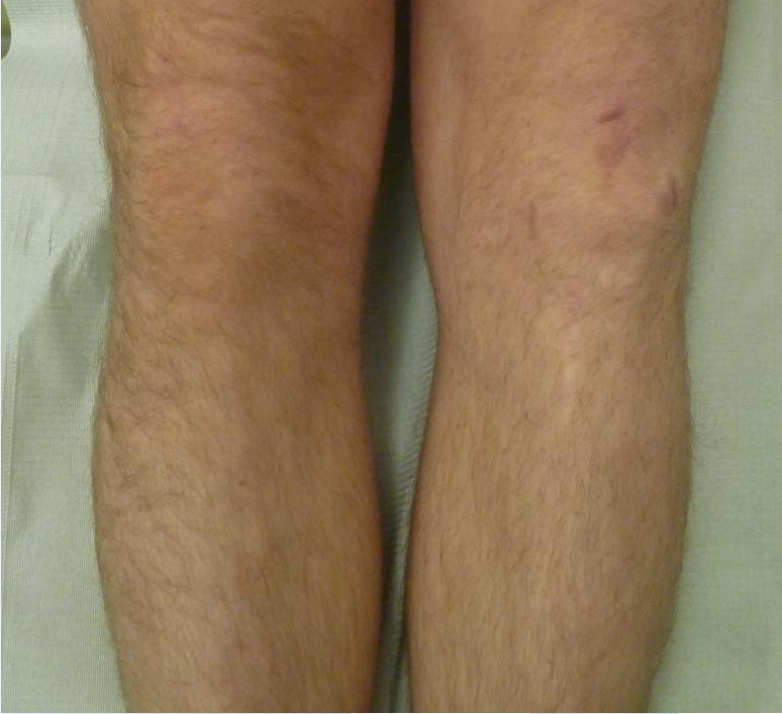
- Lavage
  - Meniscectomy
  - Chondroplasty
  - Synovectomy
  - Osteophyte excision
  - Removal of loose bodies
  - Adhesiolysis
- Very limited efficacy
  - Role in patients with predominantly mechanical symptoms
  - Important diagnostic tool prior to uni/bicompartmental arthroplasty

# Off-loading Procedures

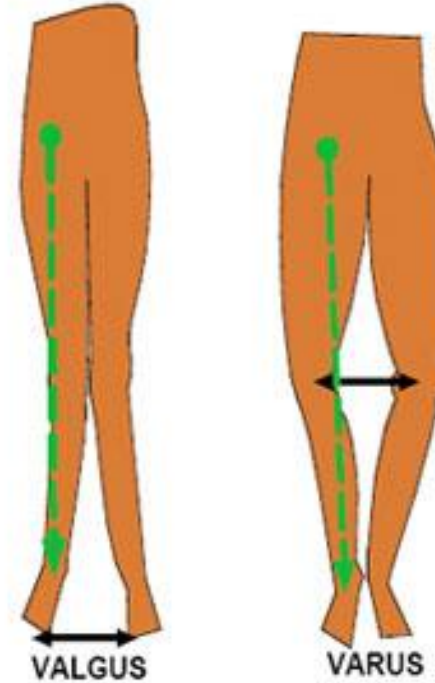
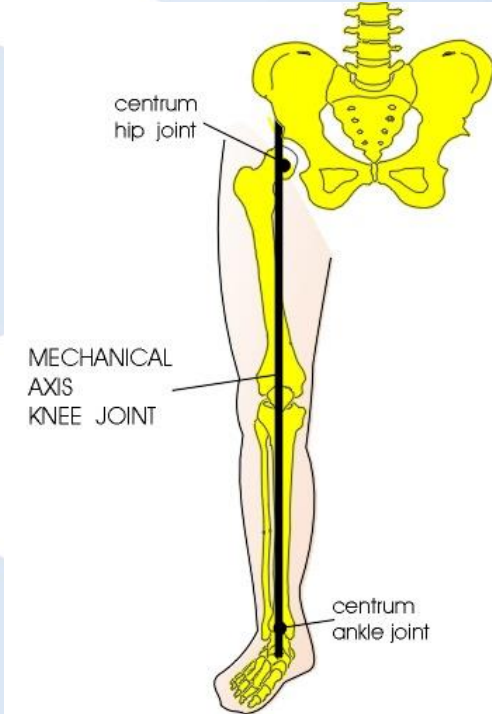




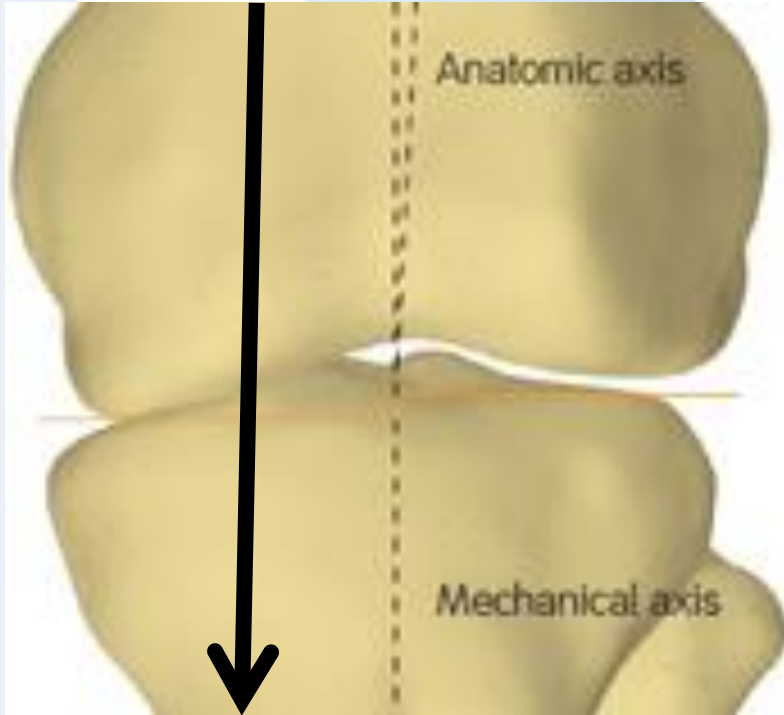
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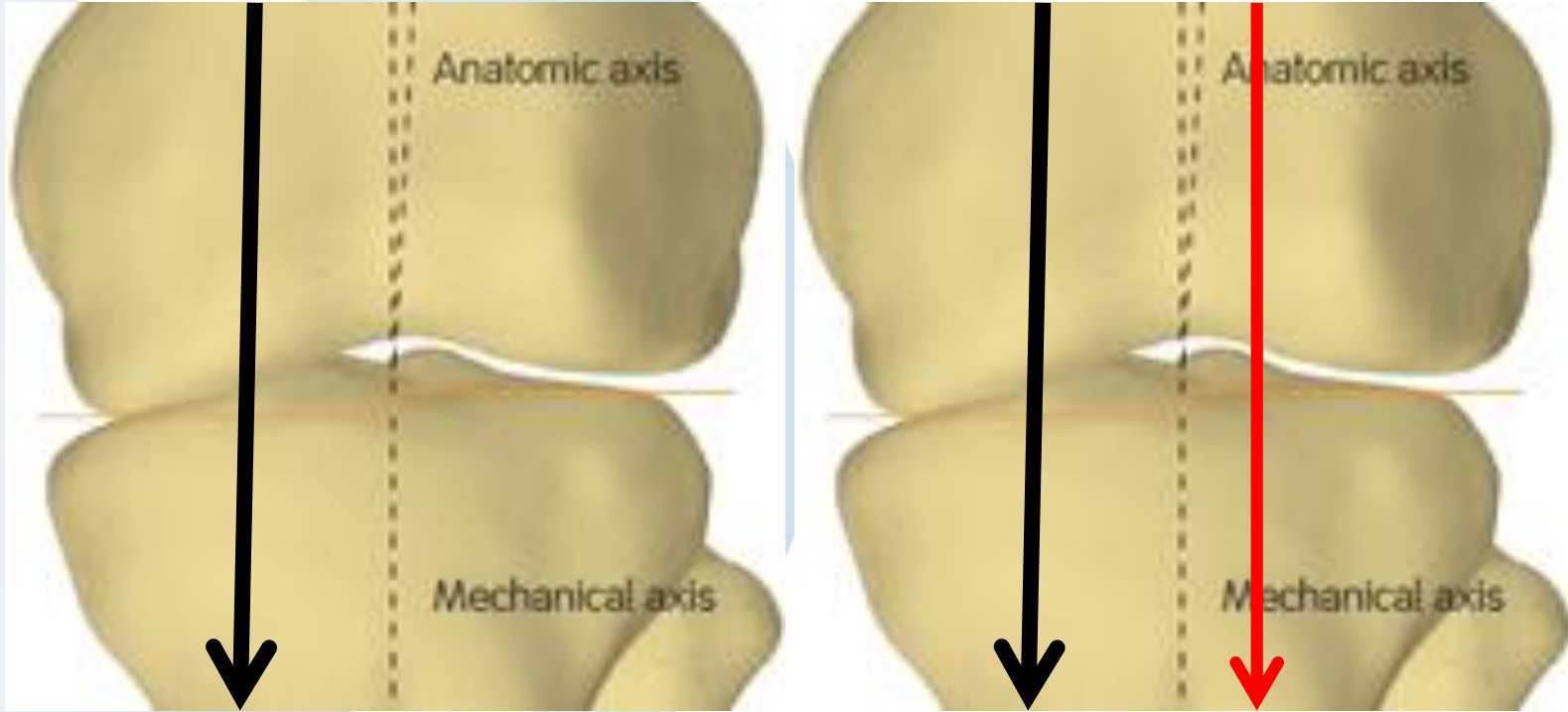
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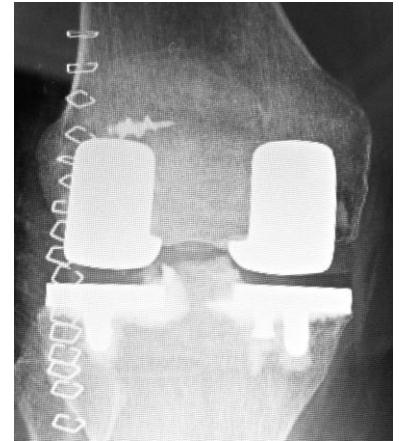
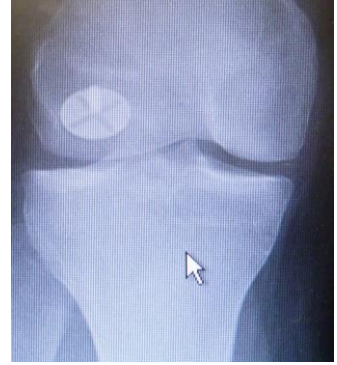


# Off-loading procedures





# Arthroplasty





# Successful Partial Knee Replacement

- Depends on volume
- Technique
- Careful selection
- Higher revision rate than TKR
- Rate of revision 0.6% p.a.
- Appropriate revision



# Failed Partial Knee Replacement

- Poor technique
- Poor selection
- Progression disease
- Poor bone stock
- Instability
- Obesity
- Revision surgery more complex
- More unpredictable

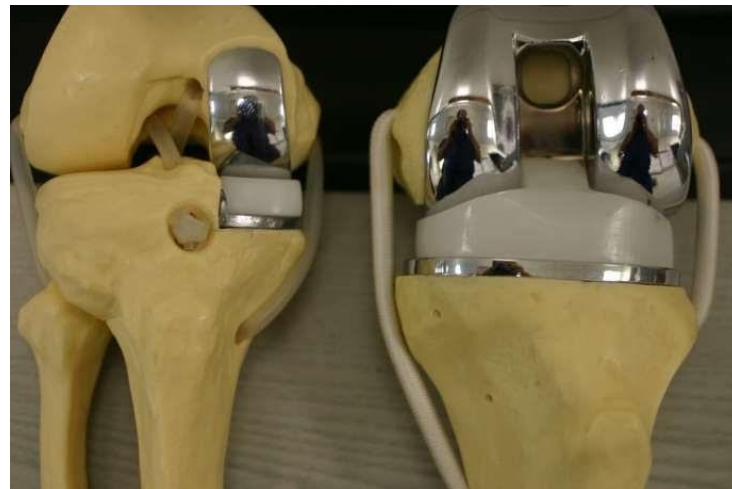


1 Severe bone loss at the level of the tibial plateau



# What Is My Preference -PN

- Did UKR in past
- Age + symptoms key in selection
- Majority of referrals to TOD are failed degenerate arthroscopic
- < 10% suitable for partial
- Leave uni to high volume surgeon
- Medial uni best results
- Better outcomes TKR with accelerated rehab and pain management as previous meetings



# What Is My Preference -PN

- TKR day 6
- Prefer TKR as surgical solution





# Case 1



- 49 year old male
- Office based
- Self employed
- Exercise-related anteromedial pain and swelling of the knee
- Unable to play tennis
- Had x1 arthroscopic debridement
- Still symptomatic
- BMI 28

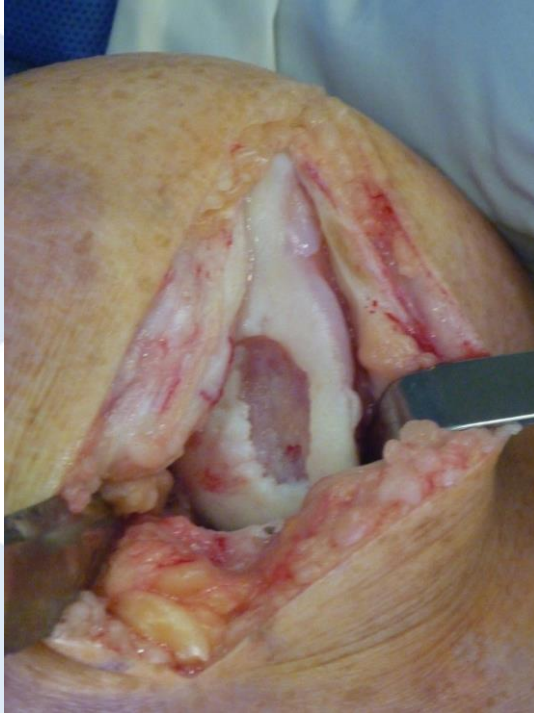


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# Case 2



- 38 year-old male
- Physically active
- Contact sports
- Significant pain
- Physical work
- Arthroscopy x2
- Tibia pristine
- Slight varus deformity



# Case 2



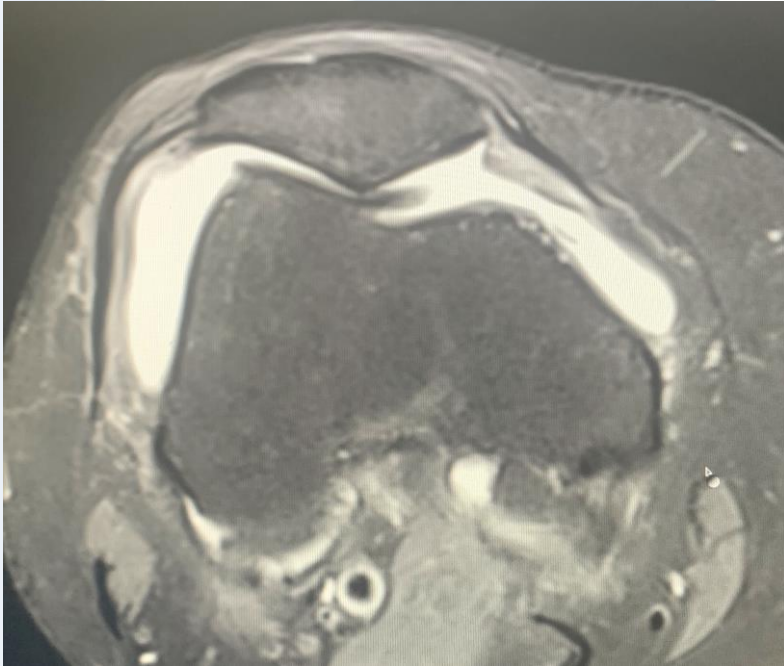
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# Case 3



- 55 year-old woman
- Usually active
- Anterior knee pain
- Very severe
- Unable to squat or bend
- Stairs difficult
- Swelling and crepitus
- Injections unhelpful
- Normal BMI

# Case 3



- 55 year-old woman
- Usually active
- Anterior knee pain
- Very severe
- Unable to squat or bend
- Stairs difficult
- Swelling and crepitus
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# Case 3



- 55 year-old woman
- Usually active
- Anterior knee pain
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- Normal BMI



# Case 4



# Case 4

- 51 year-old man
- Self employed mechanic
- No rest pain
- Very active
- Alignment normal
- Bmi 33
- Arthroscopy no relief
- Injections short term





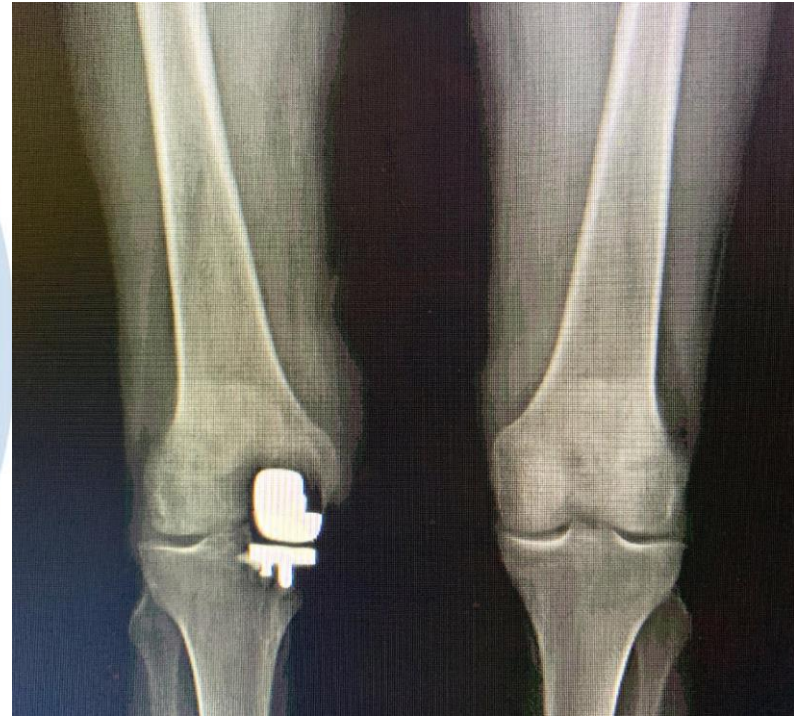
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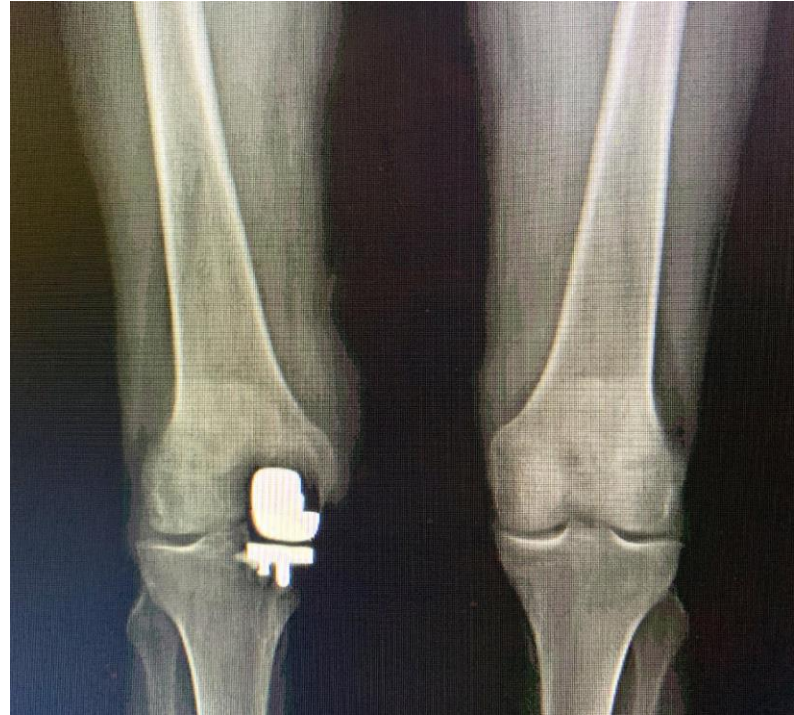


# Case 5

- 72 year old lady
- Medial Symptoms
- Initially did well



# Case 5



# Case 5







# Questions?