Surgical Approaches in TKA

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Attention to the Technique

Surgical Approach

– Too small incision : poor exposition + cutaneous necrosis
– Multiple incisions : risk of cutaneous necrosis

Attention to the Technique

Surgical Approach

– Too small incision : poor exposition + cutaneous necrosis
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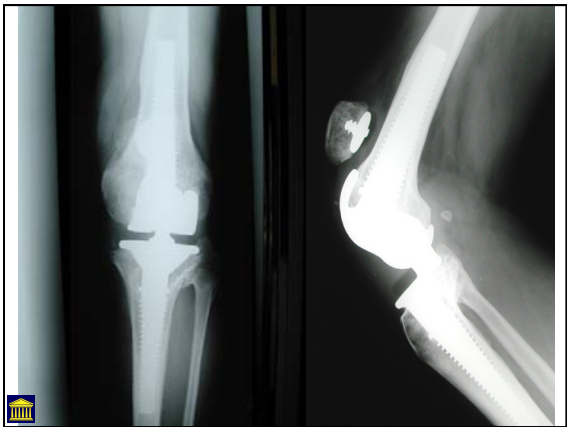
– Cicatrisation over the ATT and patella : bonne sœur

– Difficulties to luxate the patella : arrachement of patella tendon



Skin incision

Best =
a: median

Introduction: Surgical Approaches

CUTANEOUS INCISION

- MEDIAL PARAPATELLAR
- MIDVASTUS
- SUBVASTUS
- QUADRICEPS SNIP
- OSTEOTOMY of ATT
- LATERAL APPROACH

Approaches

- Subvastus
- Midvastus
- Medial-Parapatellar
- Quad-Sparing

Lateral approach

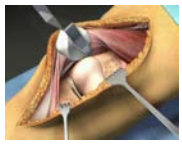
- Valgus knee
- attempt to minimize soft tissue damage
- preserve quadriceps muscle function

Knee Approaches

- Medial parapatellar
- Tri-vector
- Midvastus
- Subvastus

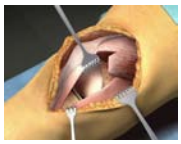
Medial Parapatella Approach

- Pro's
  - Standard TKR approach for most surgeons
  - Simple to evert the patella
  - Best visualisation
- Cons
  - Least "Quad sparing"
  - Invasive, cuts into the Quadriceps tendon
  - Higher lateral patella release rate reported
  - Longer healing time
  - Rehabilitation takes longer



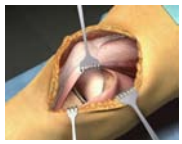
Mid-Vastus Approach

- Pro's
  - Surgeon can choose where to split the capsule
  - Do not need to mobilise the whole of Vastus Medialis
  - Good visualisation of patella tracking
  - Lateral patella release rarely seen
  - Rehabilitation shorter and easier

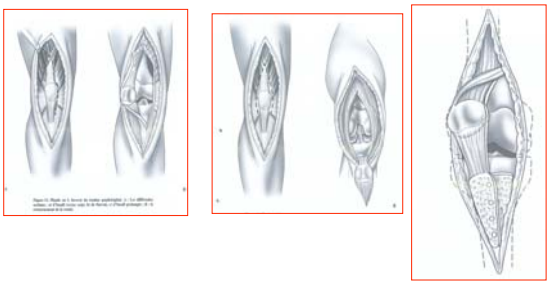


Sub-Vastus Approach

- Pro's
  - Least trauma to extensor mechanism
  - Easier rehabilitation compared to medial parapatellar procedure
  - Lateral patella release rarely seen
- Cons
  - Not very easy to extend the capsular incision
  - More difficult to perform in large and heavy muscled males
  - Can not check the patella tracking
  - Risk of patella tendon evulsion

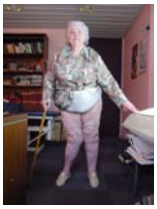


Quadriceps Snip - Osteotomy of ATT

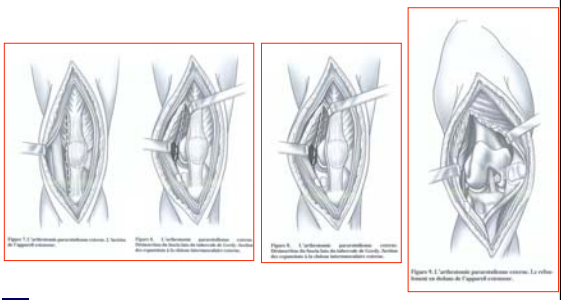


Lateral Approach : Peter Keblish

Some technical points

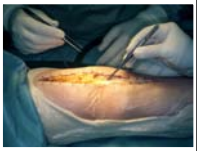


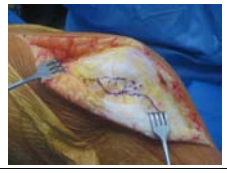
Lateral Approach



Lateral Approach : Technique

- Median incision
- Lateral arthrotomy
  - Direct to Gerdy
  - Double layer technique

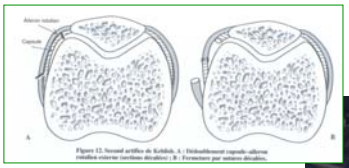


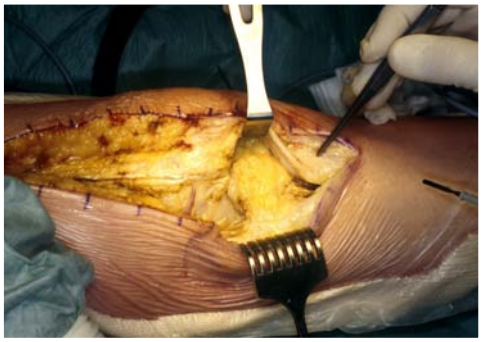


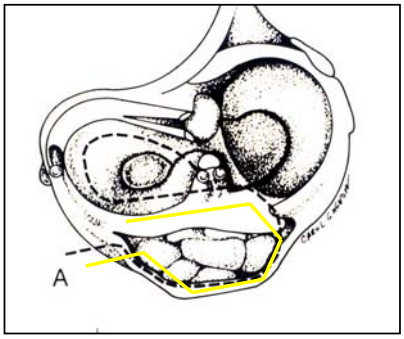
Release of lateral retinaculum

Double layer technique

Permits an easy and complete closure after correction of the valgus







Summary : lateral approach

Technique for « ALL » Genu Valgum

- **EXTERNAL**(direct)
- First RELEASE of structures retracted in EXTENSION (capsule and fascia lata)
- Permits correct STABILITY in extension and flexion.
- Permits a mobile rotatory tibial insert without increased risk of luxation