SURGICAL APPROACHES FOR KNEE ARTHROPLASTY

Back To Basics – The Lower Extremity

Orthopaedica Belgica Instructional Course

Saturday 19th November 2022

Dr Alexandre NETTEN
CHC - LIEGE

1

SURGICAL APPROACHES FOR KNEE ARTHROPLASTY

- Various surgical approaches to the knee joint and its surrounding structures
- Designed to allow the best access to an area of pathology whilst safeguarding important surrounding structures
- The medial parapatellar arthrotomy, or anteromedial approach, has been the most used and has been regarded as the standard approach for exposure of the knee joint

2

SURGICAL APPROACHES FOR KNEE ARTHROPLASTY

- Medial parapatellar arthrotomy
  - First described in 1879 by von Langenbeck
- Subvastus
  - Hofmann reported on the quadriceps preserving subvastus approach in 1991
- Midvastus
  - Described by Engh in 1997, it's a good compromise between preserving quadriceps function and good surgical exposure
- Lateral parapatellar approach

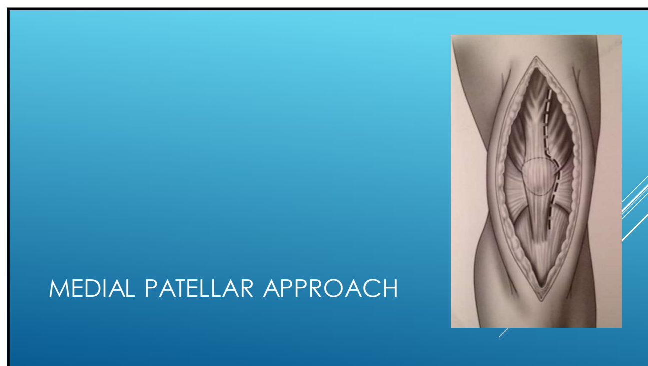
3

4

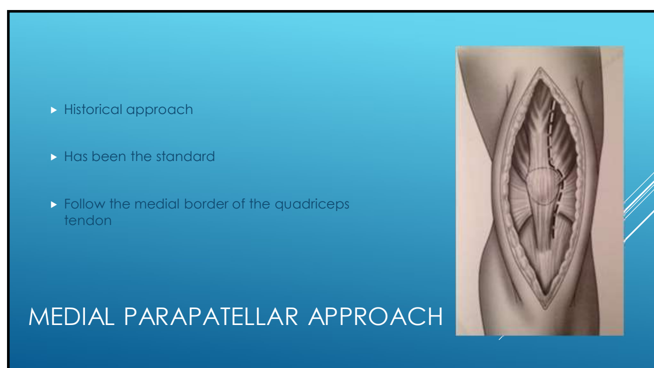
5

6

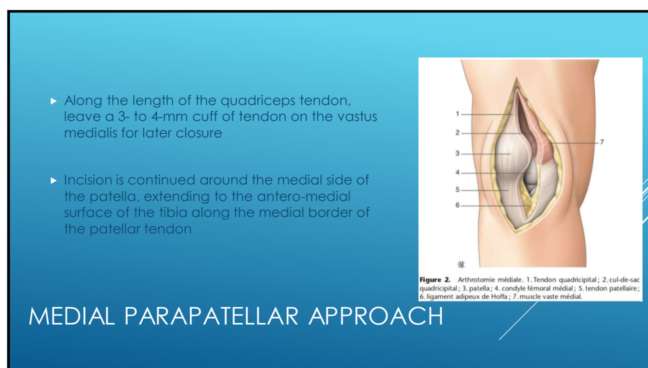
7



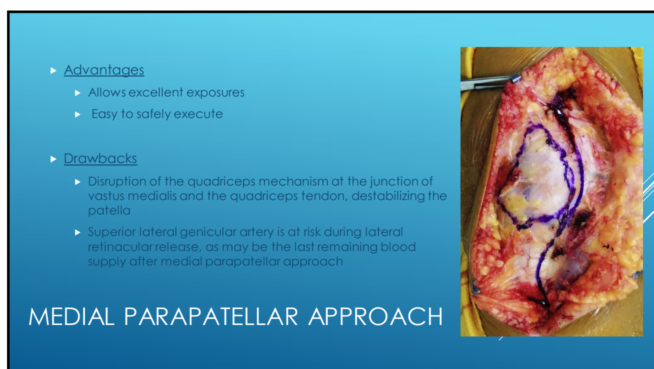
8



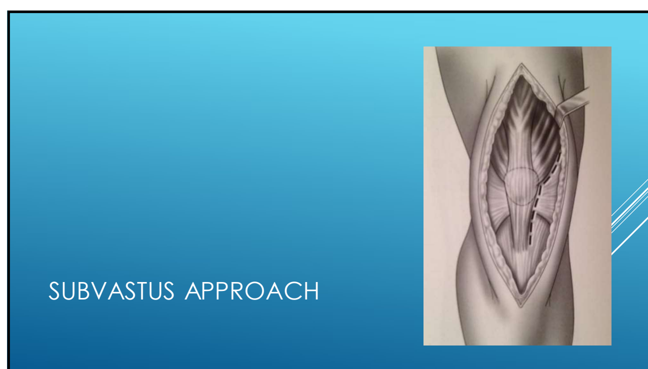
9



10

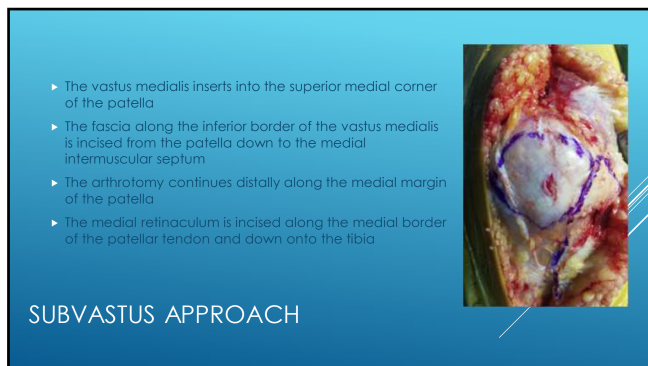


11

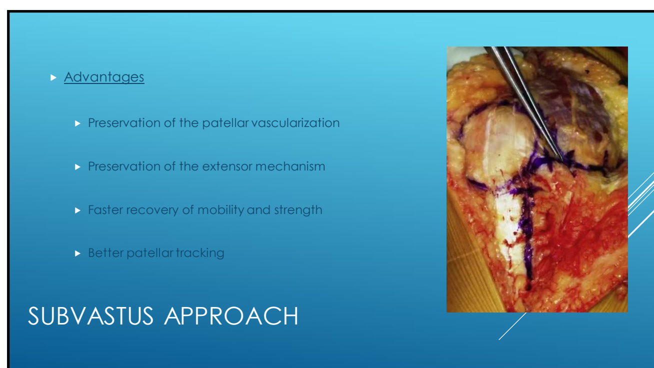


12

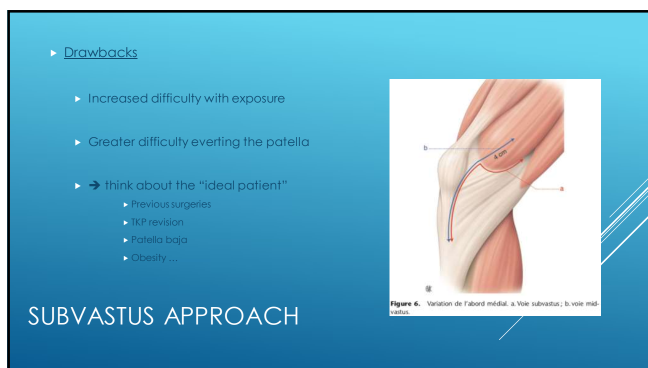
13



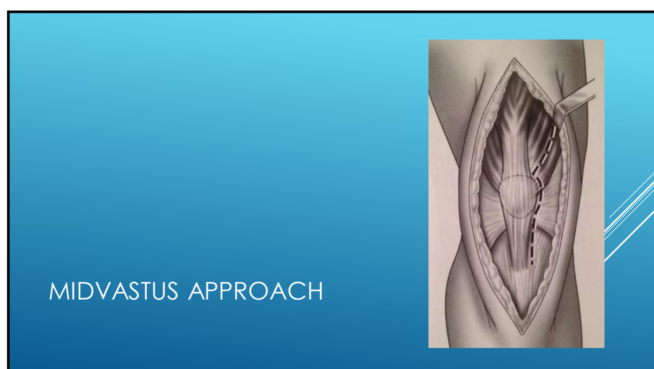
14



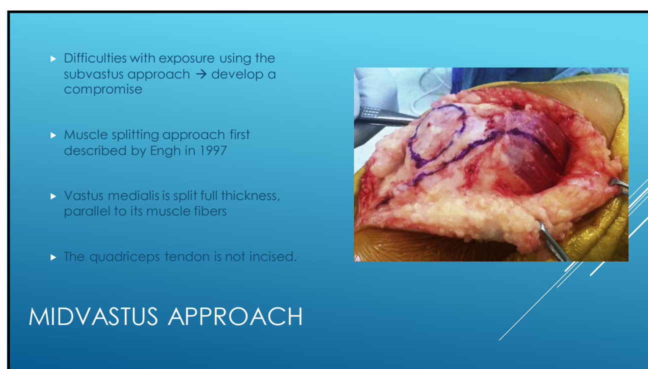
15



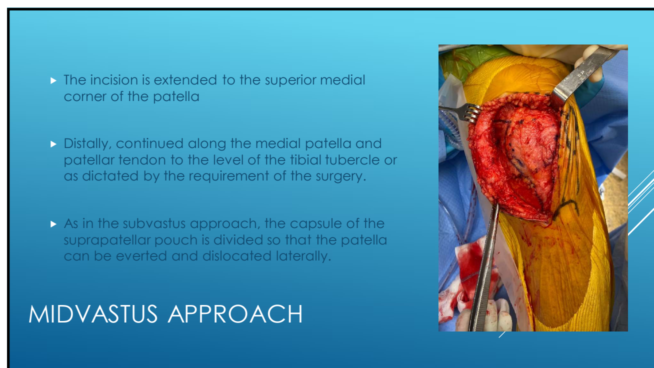
16



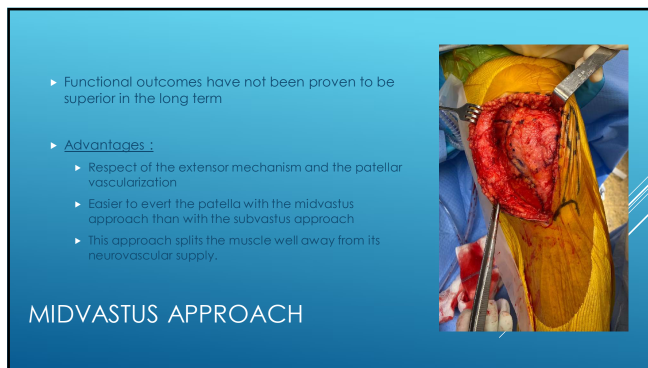
17



18

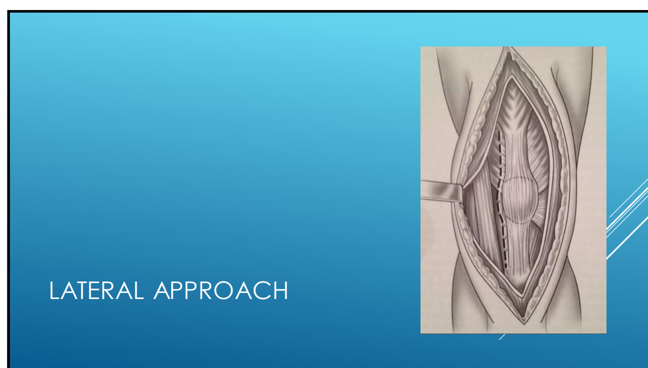


19



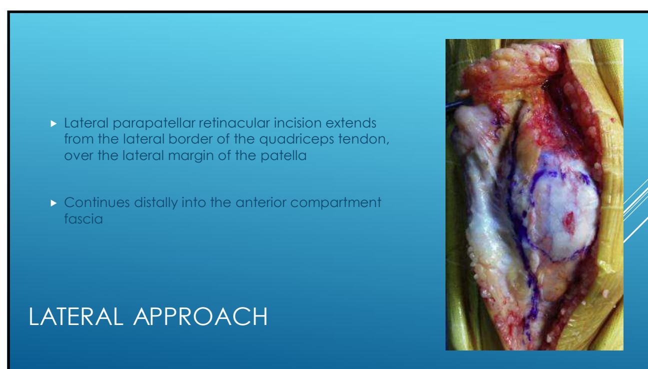
20

21

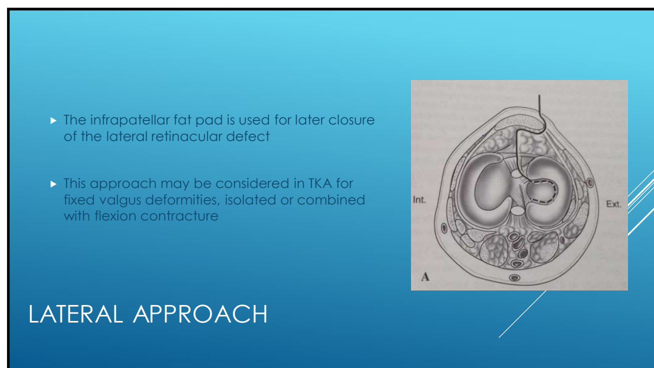


22

23



24



25

- Revision TKA
- Bony or fibrous ankylosis
- Trauma
- Infection

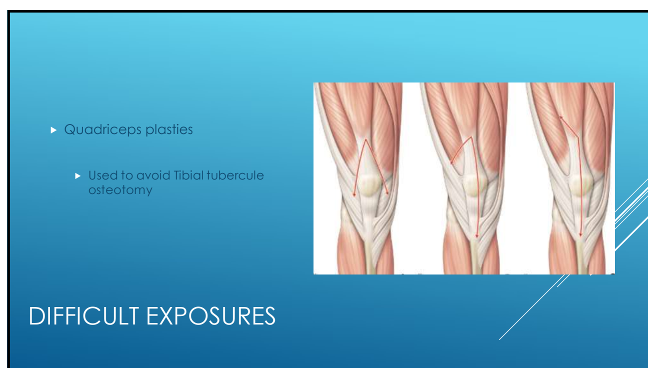
DIFFICULT EXPOSURES

26

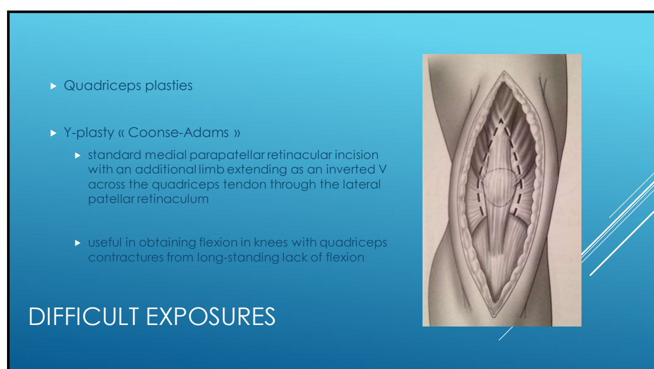
- A standard medial parapatellar approach is used in most revisions
- During eversion of the patella and flexion of the knee, the tibial insertion of the patellar tendon should be directly observed
- If the medial fibers of the insertion begin to peel away from the tibial tubercle, tension should be released, and a more extensive, quadriceps-relaxing exposure should be considered.

DIFFICULT EXPOSURES

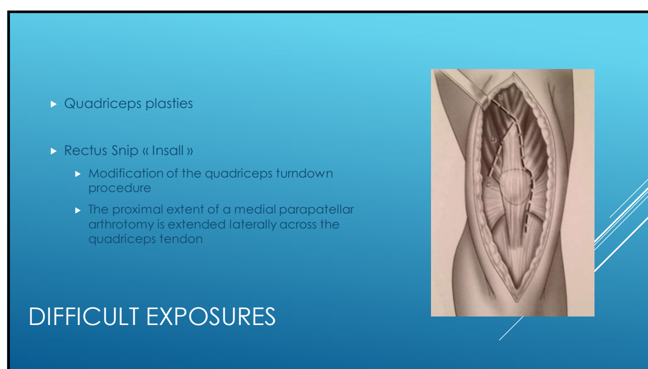
27



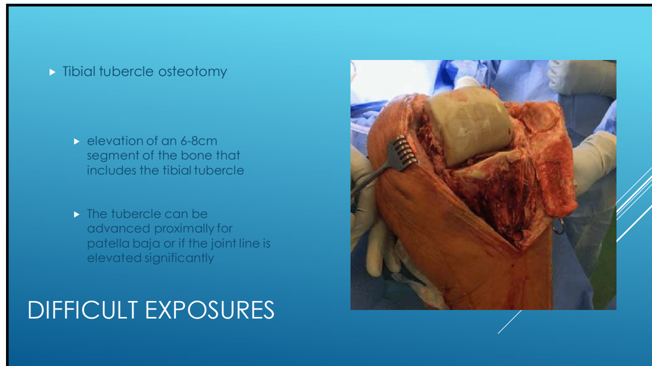
28



29



30



31

SURGICAL APPROACHES FOR KNEE ARTHROPLASTY

- With careful planning and arthrotomy selection, the anterior aspect of the joint can be adequately exposed for knee arthroplasties in different clinical scenarios
- The choice of surgical approach for knee arthroplasties should be dictated by
  - the presenting clinical scenario
  - the training and experience of the surgeon

32

THANK YOU FOR YOUR ATTENTION

33