TKR after patellectomy

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• The authors declared no conflicts of interest for this presentation.

Indications for patellectomy?

- Comminuted patellar fractures
- Multiple surgeries for patellar instability...
- Not recommended

History

- Natural history after patellectomy: INSTABILITY
- At 90° of flexion ++
- Often posterior
- (hamstrings tendons)

Results

- N=69
- Rate of TFJ OA= other knee
- 25% decrease activity level
- Bad result if occurrence of OA
- Anterior knee pain frequent
- Some Adaptation

KNEE FUNCTION AFTER PATELLECTOMY
A 10 TO 40 YEAR FOLLOW-UP
JBJS Br 1994

- Loss of extension force 30-50%
- Loss of Hamstrings force
- Loss of ROM
- Kuster M
- Knee Surg Sports Traumatol Arthros 1996
- Fletcher S JBJ 1976: effect of patellectomy on knee function.
- QOL7: walking, stairs
Clinical case
• Women 60
• Bilateral patellectomy 1980 (anterior knee pain)
• Pain
• ANK
• Instability
• Both knees
• -20, 90

Clinical case (2)
• Bilateral TKR
• CS prosthesis

Clinical case (3)
• Good result
• - pain
• 0-90 passive
• -20 active extension

Results
• Expectations of a TKR after patellectomy?
• N=50
• Mean FU 69 months (24-200)
• Mean active flexion 100
• Extensor lag deficit 10 to 20°
• No > reoperations
• Result correlated with the time between patellectomy and TKR

Type of constraint
• Posterior stabilized implant >> Cruciate retaining

Other options
Allograft Reconstruction of the Extensor Mechanism for Progressive Extensor Lag After Total Knee Arthroplasty and Previous Patellectomy

A 3-Year Follow-Up
The Journal of Arthroplasty Vol. 21 No. 7 2006
Shekhar Kolli, MCh (Orth), MMed (Surg), FRCS (Orth), and John Scudamore, FRCS

- Small series
- Good results
- Stable with time
- 3 years

Iliac crest graft

Reconstruction of the patella with an autogenous iliac graft: clinical and radiologic results in thirteen patients

Carolyn Fehrenbacher, M.D., M.H.S.
Carl Jordan Weit, Christian Nolteberg, C. M.D.

- N=13
- FU 40 months
- IKs 67.3

Total patellar arthroplasty

- Kwong The Knee 2008
- Results: disappointing
- Early failures 1 year

Take Home Message

Don’t do a patellectomy!

If OA: TKR possible
Preservation of continuous fibrous tissue between femur and tibia+++ 
CS component
Relatively good results (pain relief)