PRIMARY TOTAL KNEE ARTHROPLASTY
AFTER KNEE FUSION due to TUBERCULOSIS

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Disclosure Statement of Financial Interest

I, Dicky Mulyadi MD, PhD. DO NOT have a financial interest/arrangement or affiliation with one or more organizations that could be perceived as a real or apparent conflict or interest in the context of subject of this presentation.
Tuberculousis Musculoskeletal

TB Incidence

Knee 8%

Hip 15%

Spine 50%
## Arthritis TB Knee

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Radiologic Finding</th>
<th>Laboratorium</th>
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<tbody>
<tr>
<td>Gradual onset</td>
<td>Juxta-articular osteopenia</td>
<td>ESR ↑</td>
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<tr>
<td>PAIN</td>
<td>Joint space narrowing</td>
<td>WBC N</td>
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<tr>
<td>Stiffess</td>
<td>Erosion</td>
<td>CRP ↑</td>
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<tr>
<td>Limp</td>
<td></td>
<td></td>
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<tr>
<td>SWELLING</td>
<td></td>
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<tr>
<td>Local heat</td>
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</tbody>
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- **ESR**: Erythrocyte Sedimentation Rate
- **WBC**: White Blood Cell
- **CRP**: C-reactive Protein
TREATMENT

Options for treatment are anti-tuberculous chemotherapy, but surgery may be indicated to improve symptoms and quality of life in patients affected by joint infection.

A solid fusion of a knee is still considered the most successful treatment for tuberculous arthritis but almost all patients dislike this procedure.

Indications for conversion of a fused knee to TKA are: severe deficit of function, pain or discomfort of the fused knee, poor quality of life.
CONVERSION
ARTHRODESIS to TKA

SURGICAL PROCEDURE

• Level of bone cut accurately (MM)
• Lig balance (MCL & LCL)
• Patella Bone & Lig position
• Appropriate implant design
Case Studies

- Miss Z, 24 yo
- Mr D, 28
- Mrs F, 24 yo
- Mrs N, 53 yo
- Mrs T, 35 yo

CRP Follow-Up
MISS Z 24 YO, Conversion Fusion to TKA

5 years post op
MRS F 24 YO, CONVERSION FUSION to TKA
MRS T 35 YO, CONVERSION FUSION to TKA
Waiting for the next procedure
CONCLUSIONS

Primary TKR for knee Tuberculosis is Possible if:

- Adequate debridement
- Fusion was done by same surgeon
- Good Quality of Bone Stock
- Good condition of ligament (MCL & LCL)
- Good position of patellar bone & P. tendon
REFERENCES


