



The Universal Hip Workshop

Complications and Revision Options

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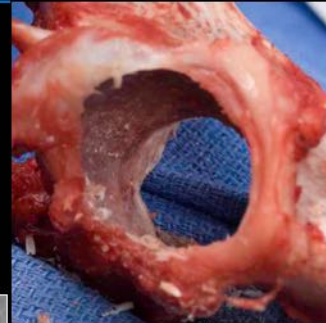
Notes



Complications and Revision Options

Perforation of medial cortex

- CFX (rare indication)
- Small defect
 - Pack with cancellous bone
- Medium - large defect
 - Corticocancellous plug
 - Revise to larger BFX preparation



+4days

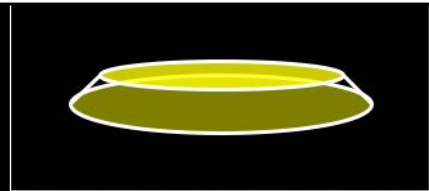
Notes

- Wire mesh & PMMA augmentation
- No longer recommended

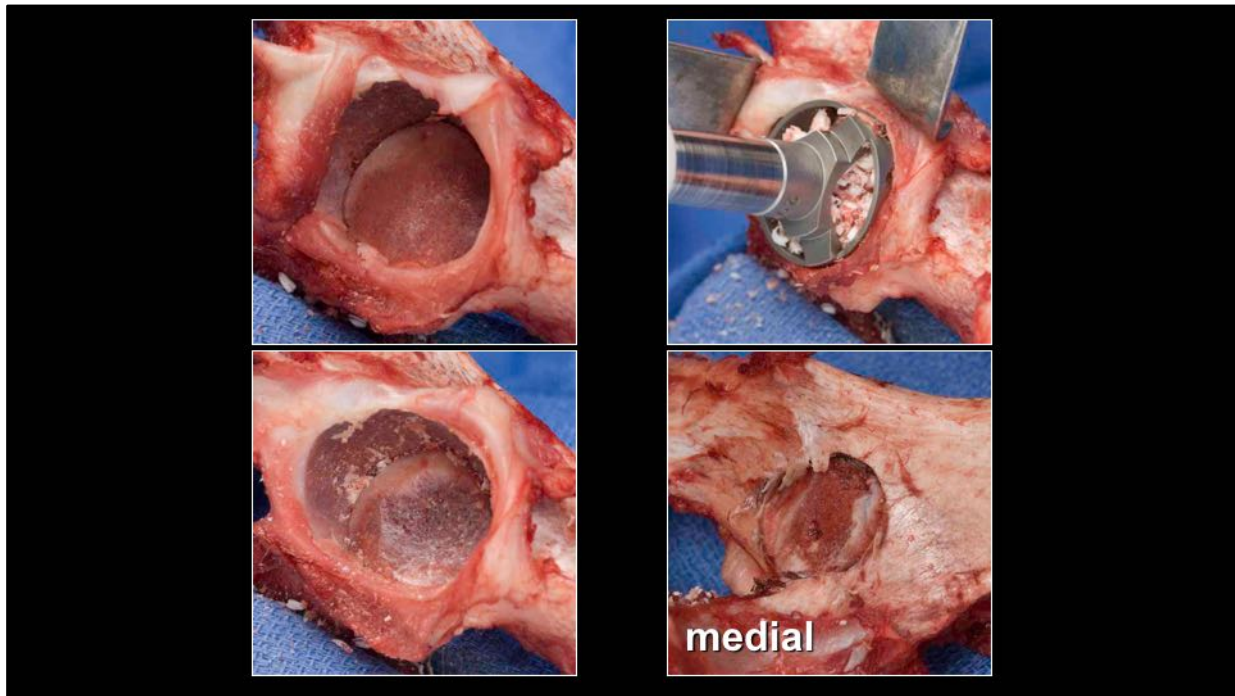


Notes

- Manufacture disc from femoral head
- Shape & bevel edges
- Tamp into medial wall



Notes



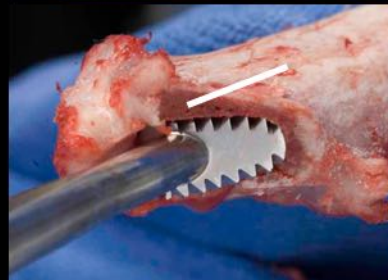
Notes



Complications and Revision Options

Intraoperative cortical fissure

- More common with BFX preparation
- Fissure early during broaching
 - Check angle of attack
 - Cerclage
 - Cement stem
- Cerclage if CFx prep?



Notes

- Fissure during terminal broaching or stem insertion
 - Withdraw stem
 - Multiple cerclage
 - Complete broaching to ensure appropriate drive distance
 - Insert stem



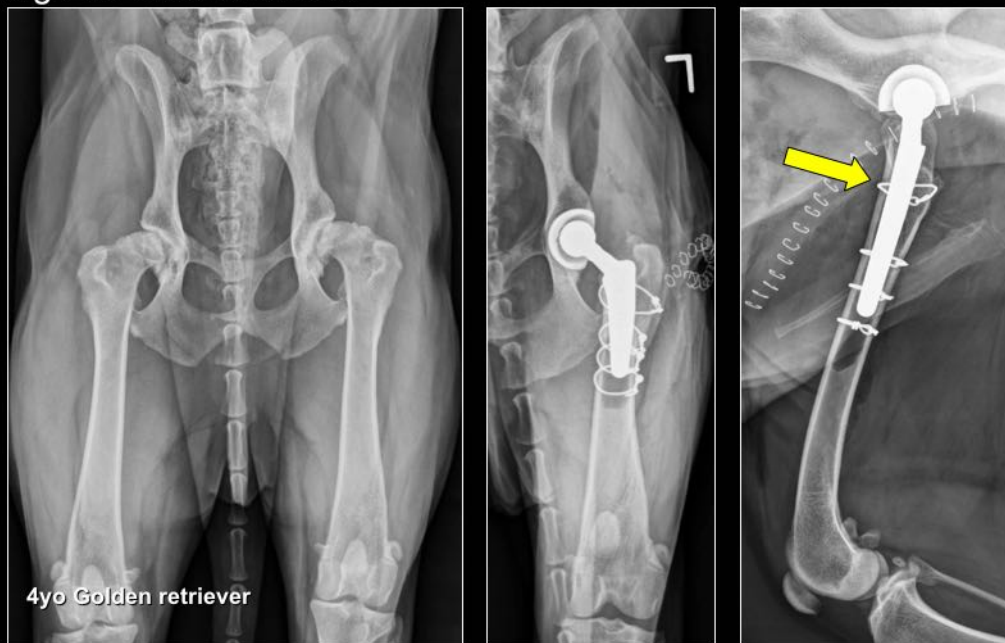
Notes

- Fissures can propagate from tip
- Critical radiographic review



Notes

- Cerclage for fissure control



Notes



Complications and Revision Options

Acetabular revision

- Indications
- Acetabular misalignment (luxation)
- PE wear / deformation
- Cup displacement
- Aseptic loosening



Notes

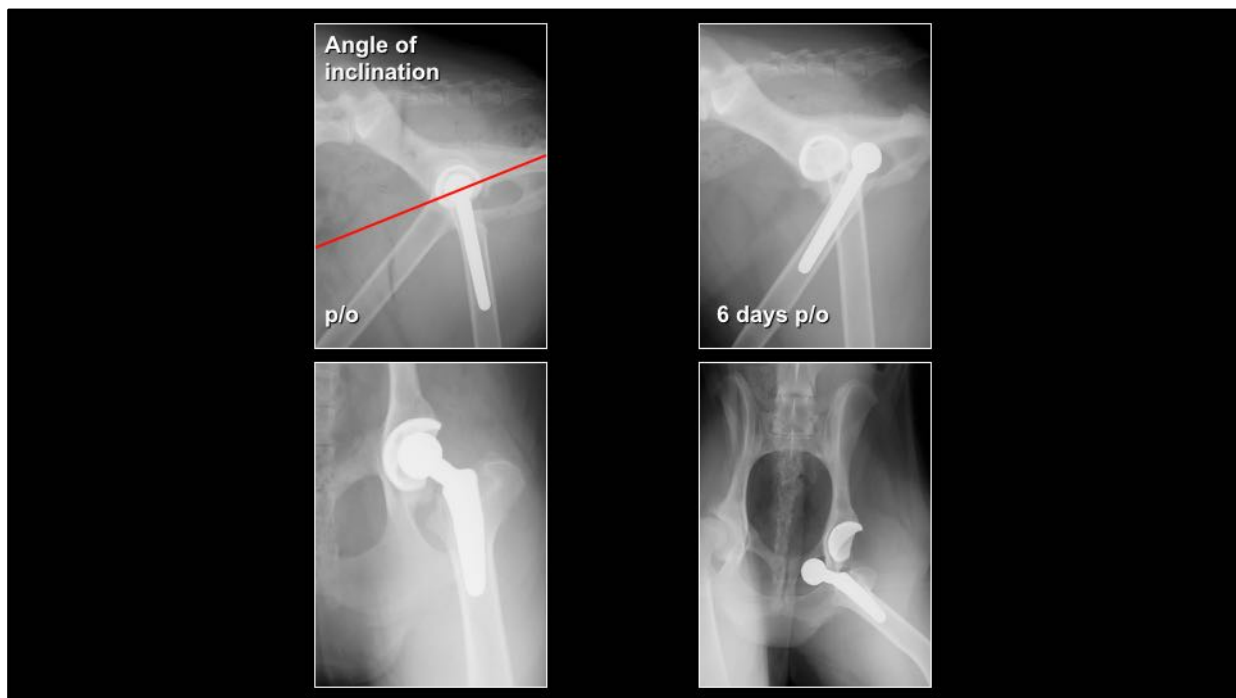


Triple pelvic osteotomy



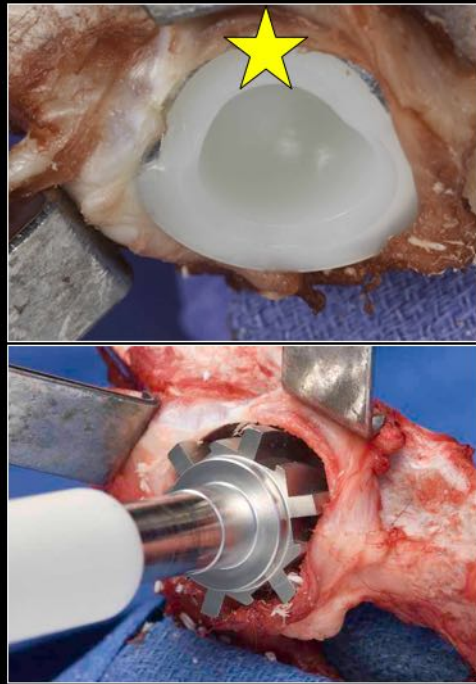
- Bfx indication

Notes



Notes

- Impact dorsal rim to displace (acute case)
- Reuse cup if no PE deformation
- Revise reaming if necessary
- Standard impaction
- If ingrown break down BCI with osteotomes
- Upsize cup



Notes



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Notes

• Neck lengthening (CFx vs BFx)

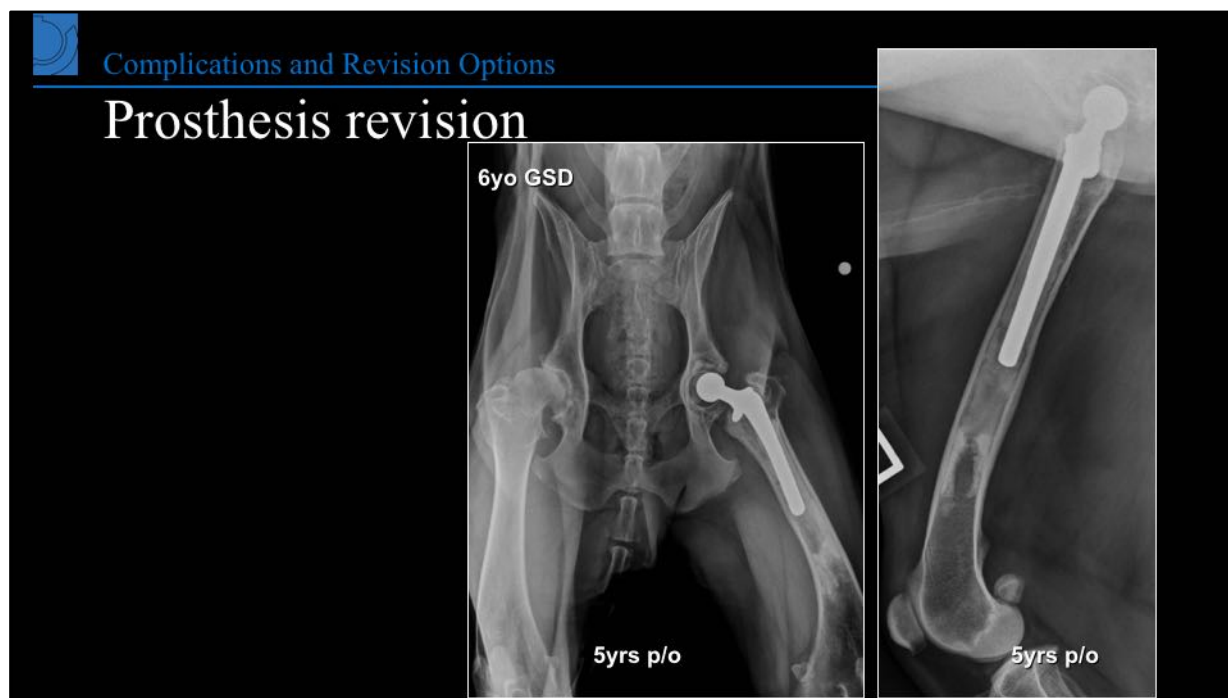


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- If ingrown, break down BCI with osteotomies
- Revise reaming & upsize cup



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Complications and Revision Options

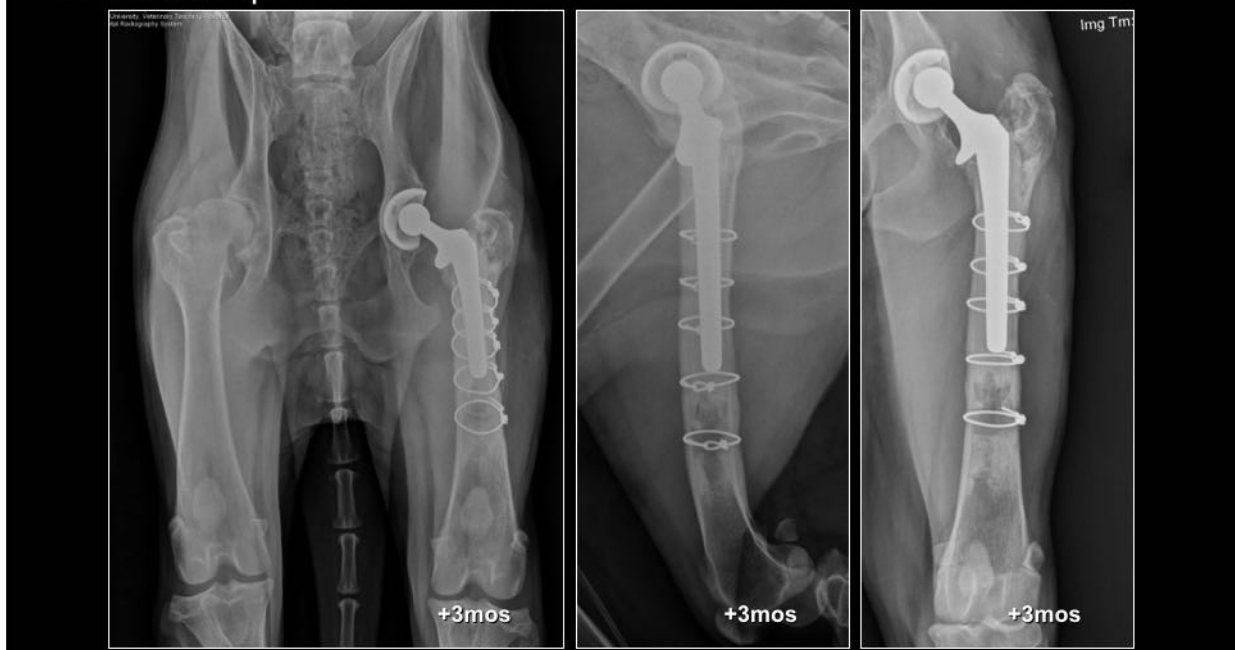
CFx/BFx cup revision. CFx stem revision

- Template to assess practicality
- Remove all cement
- Revise reaming & upsize cup
- Debride and graft key holes



Notes

- 3mo follow up



Notes



Complications and Revision Options

Femoral fracture

Classification (Duncan & Masri 1995)

- Type A greater or lesser trochanter
- Type B diaphyseal around the femoral component
 - B1 well-fixed femoral component
 - B2 loose femoral component
 - B3 poor proximal bone stock
- Type C distal to the femoral component

Notes



Complications and Revision Options

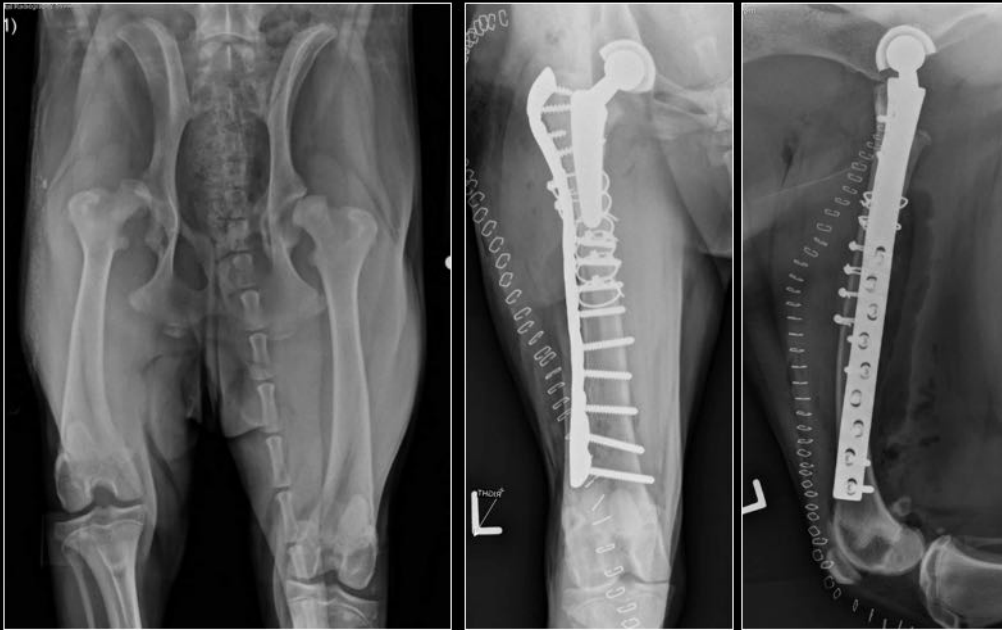
Type B1 Management

- asepsis
- cerclage
- DCP / LC-DCP / LCP
- PMMA
- cancellous graft



Notes

• 1yo Mastiff



Notes



Complications and Revision Options

Type B1 Outcome

- prognosis good
- function should equal routine THR



Notes



Complications and Revision Options

Type B1 Complications

- infection
- delayed union
- malunion
- nonunion
- refracture
- aseptic loosening



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Complications and Revision Options

Femoral stem explantation

- Indications
 - Periprosthetic infection
 - Aseptic loosening
 - Recurrent luxation
 - Implant failure

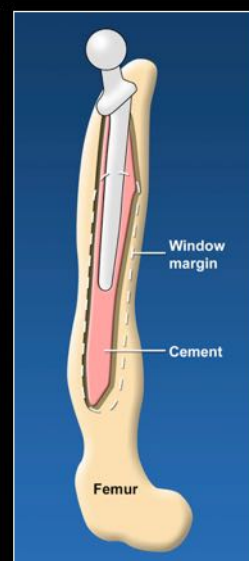


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Complications and Revision Options

Lateral femoral window



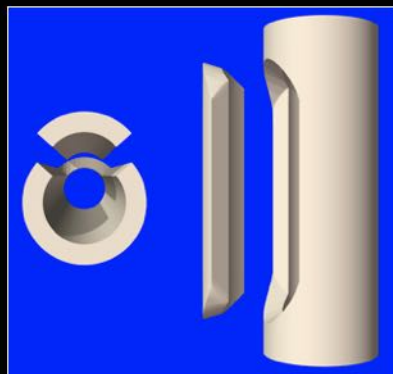
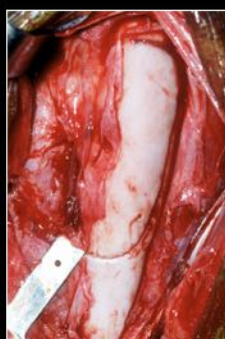
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Complications and Revision Options

Femoral explantation

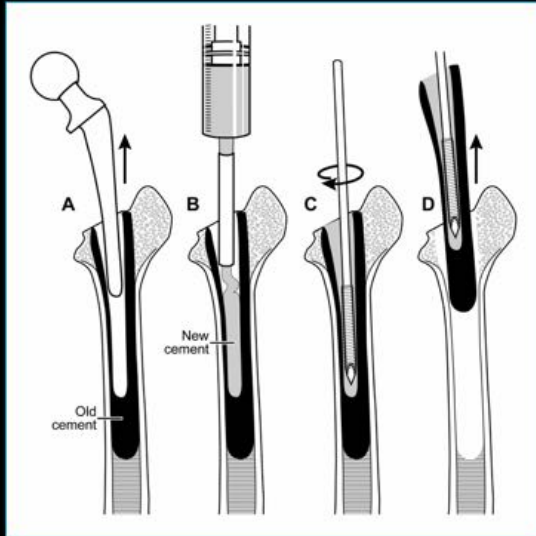
- Create a beveled, oval osteotomy in the lateral femur



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Complications and Revision Options

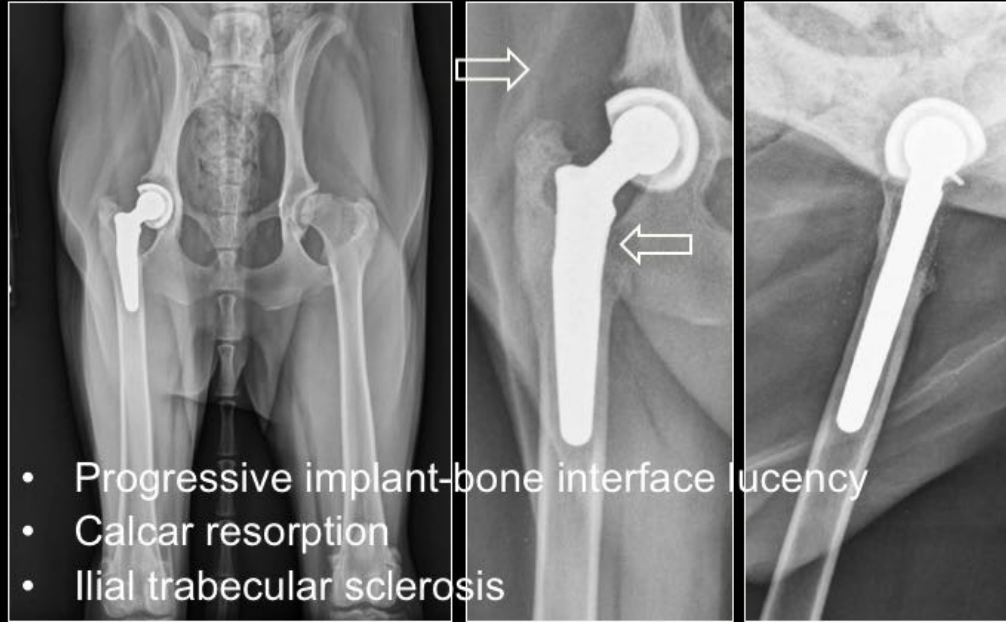
En bloc cement retrieval



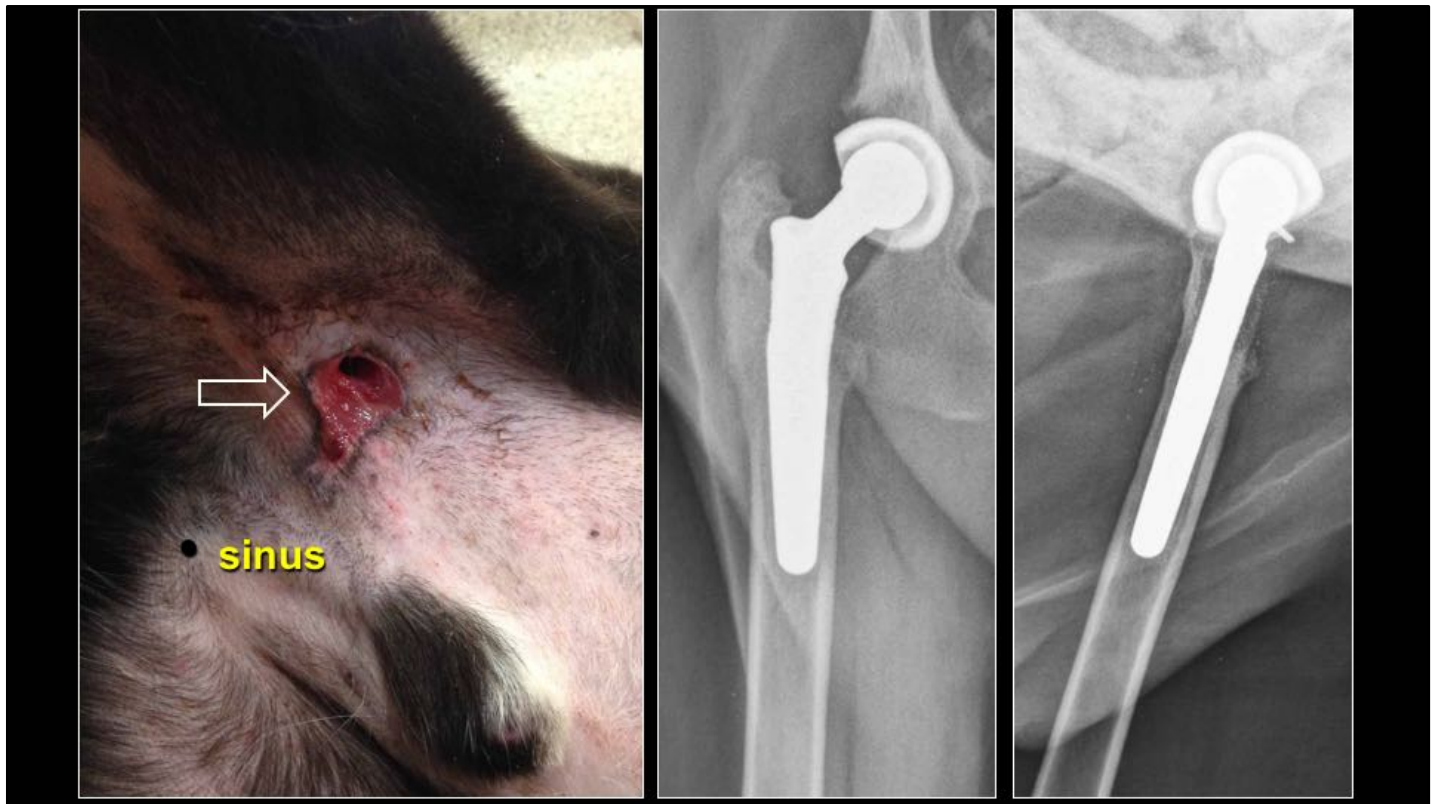
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Radiology of BFX infection



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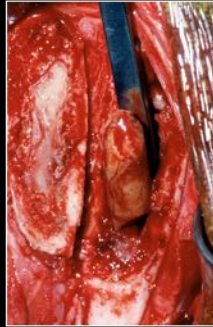
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Complications and Revision Options

Femoral explantation

- Remove the PMMA
- Clean the shaft of membrane and debris
- Secure the window osteotomy with wire

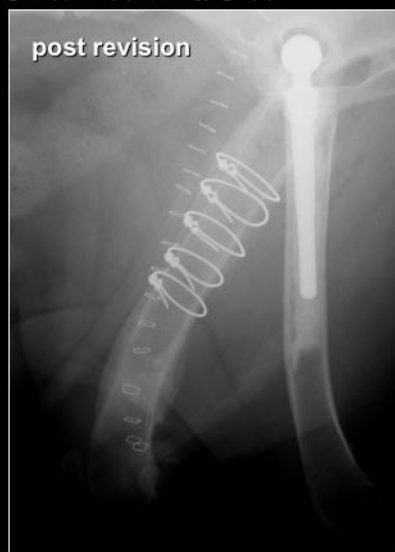


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Complications and Revision Options

Femoral window



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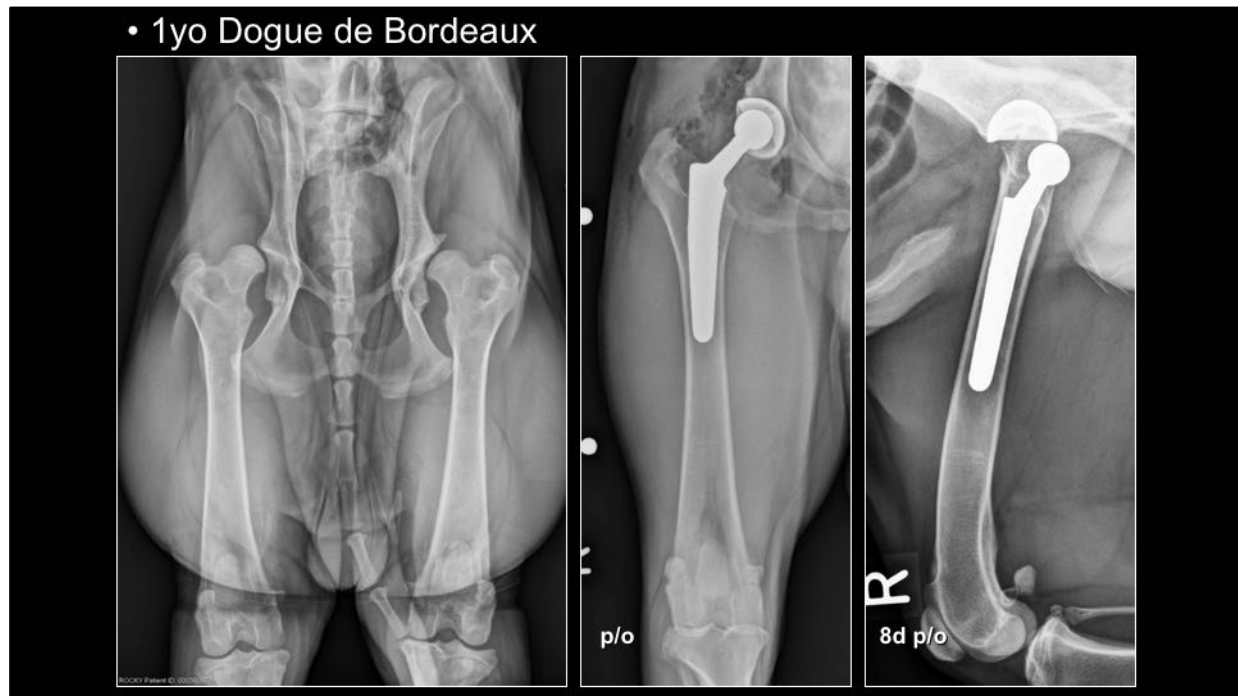
Complications and Revision Options

Femoral stem explantation (BFx)

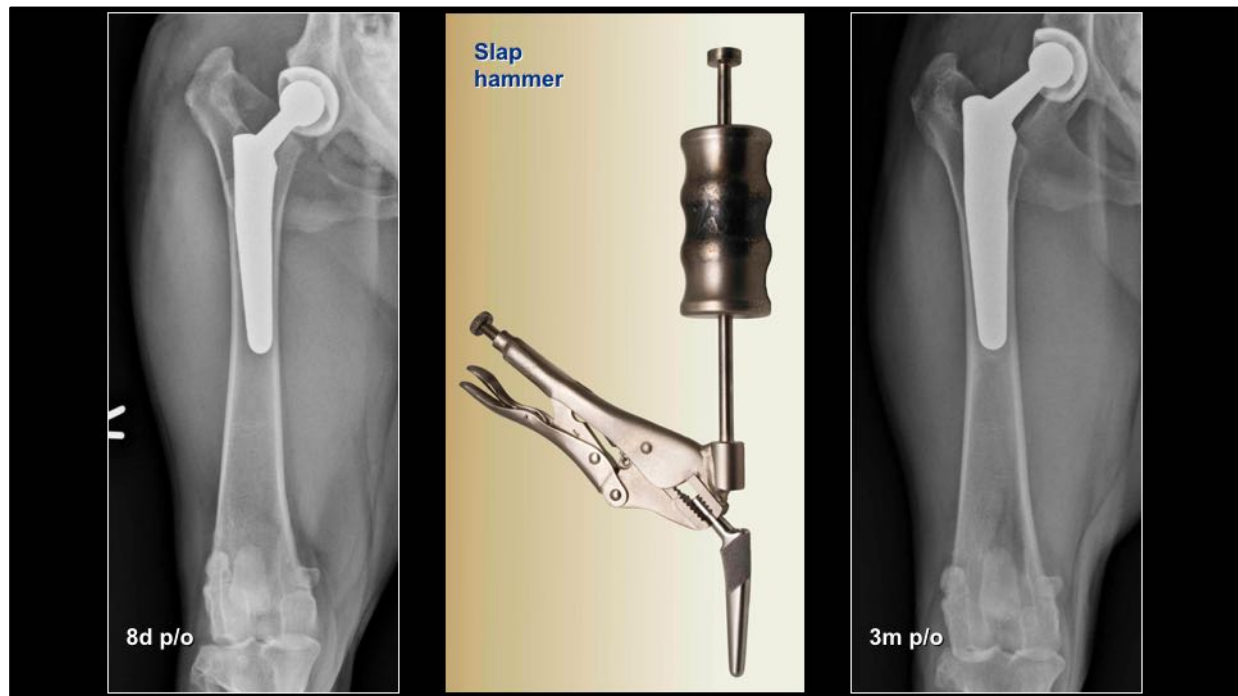
- Acute subsidence (no ingrowth)
- Chronic revision (ingrowth)



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• Maxwell 1yo Rottweiler



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Complications and Revision Options

Recommendations for BFX explant

- Lateral femoral window gives poor access to ingrowth surface and exposes greater trochanter
- Trochanteric slide osteotomy
- Remove bone in intertrochanteric region
- Interface fragmentation via osteotomy
- Cranial cortical fenestration



Notes

- Consider osteotomy modification to address subluxation



Notes

• Thor 1yo Newfoundland



Notes

- Stem osseointegration
- Prosthetic femoral neck excision

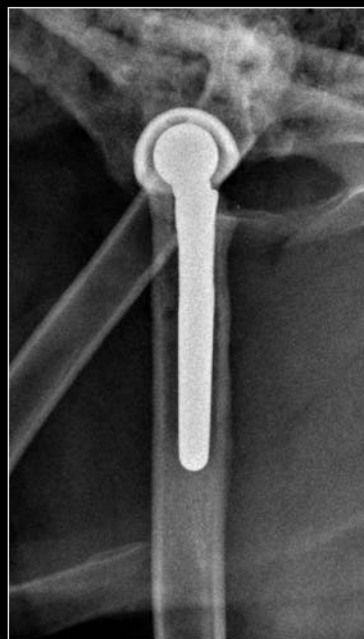


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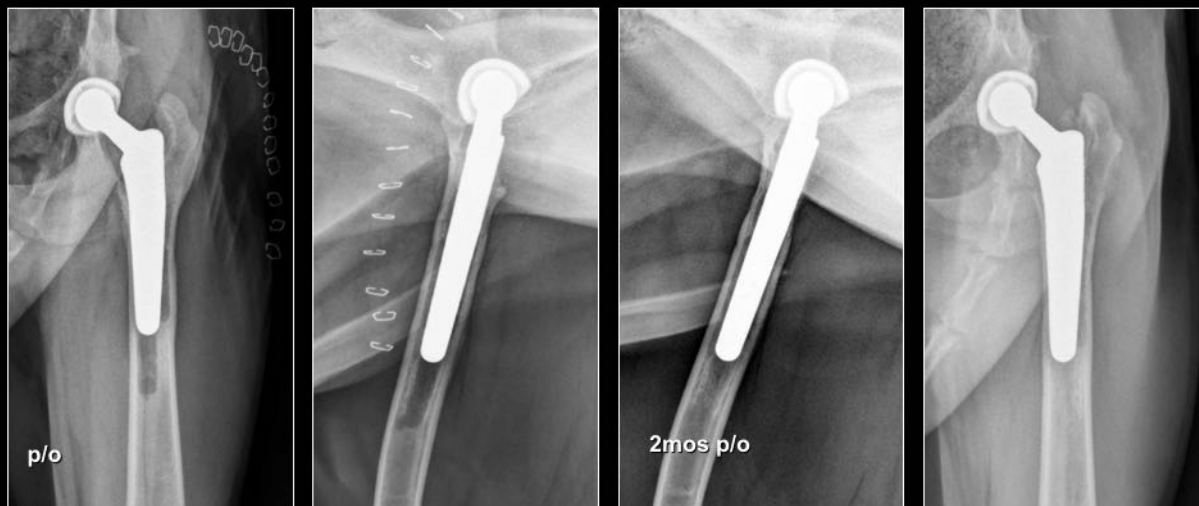
Notes

- Failure of stem osseointegration
- Stable cup fixation
- Aseptic



Notes

- Explantation
- Revise reaming
- Cancellous impaction grafting



Notes



Complications and Revision Options

Prosthesis revision



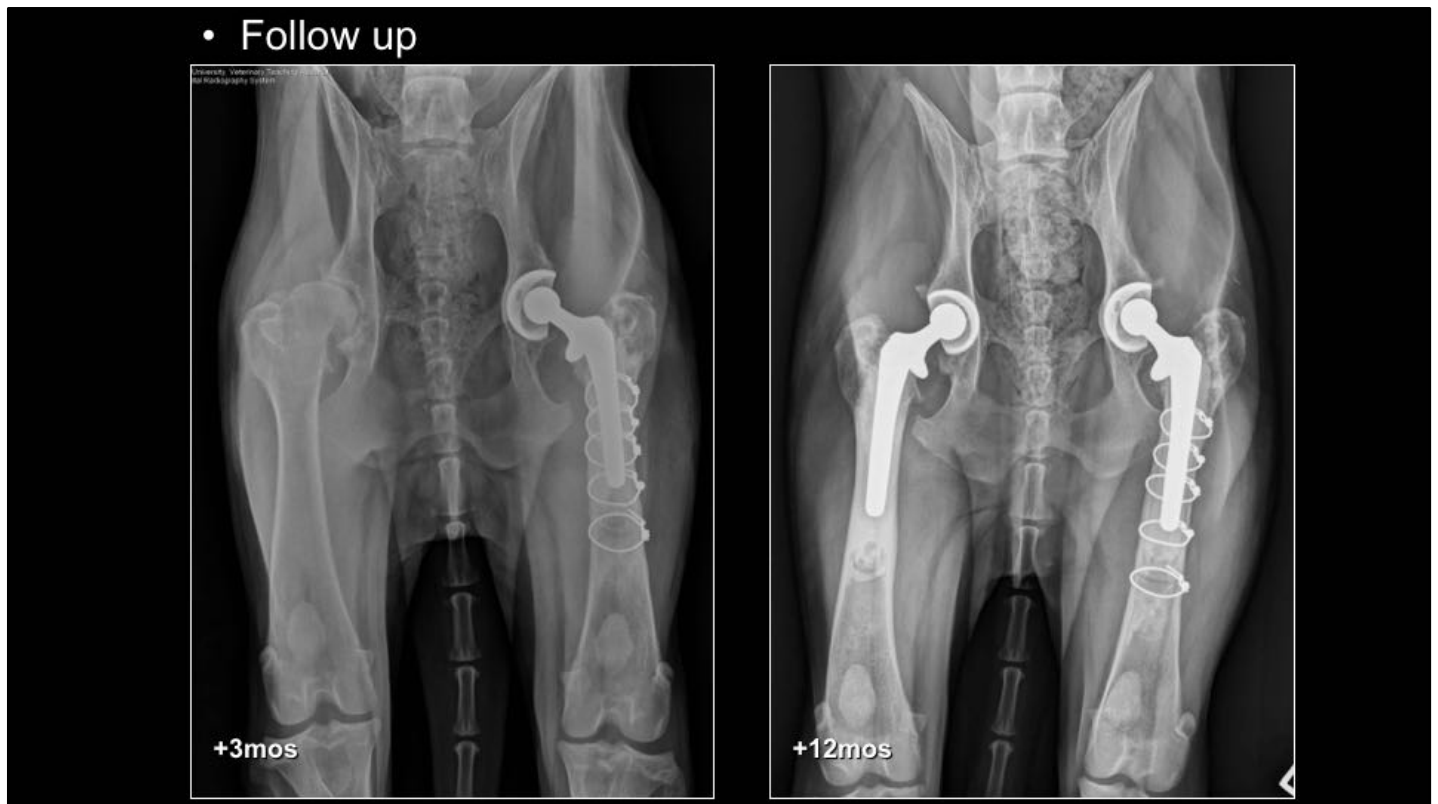
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- CFx[®]BFx cup revision. CFx stem revision



Notes

- Follow up



Notes



Complications and Revision Options

Summary

- Avoid technical errors that promote complications
- Early intervention optimal for e.g subsidence
- Revision prior to osseointegration of BFX
- For acetabulum, default revision to BFX
- Stem revision for aseptic loosening?
- Cementless revision for infection?

Notes



The Universal Hip Workshop

Postop Radiographic Evaluation



INNOVATION • EDUCATION • SUPPORT

Notes
