

DIFFICULT PRIMARY TKA :

SKIN, MULTIPLE SCARS, COVERAGE, FLAPS

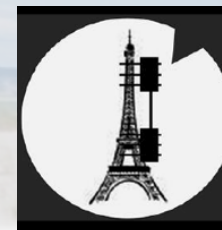
Ambroise PARE University Hospital

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Centre de Chirurgie
Orthopédique et Sportive
Bordeaux Mérignac - Rocade sortie 12



How to deal with previous scars ?

Previous scars are frequent in TKR

You do not know about all the « small details » from the past : wound healing issues, infection , subcutanéous dissection etc ...

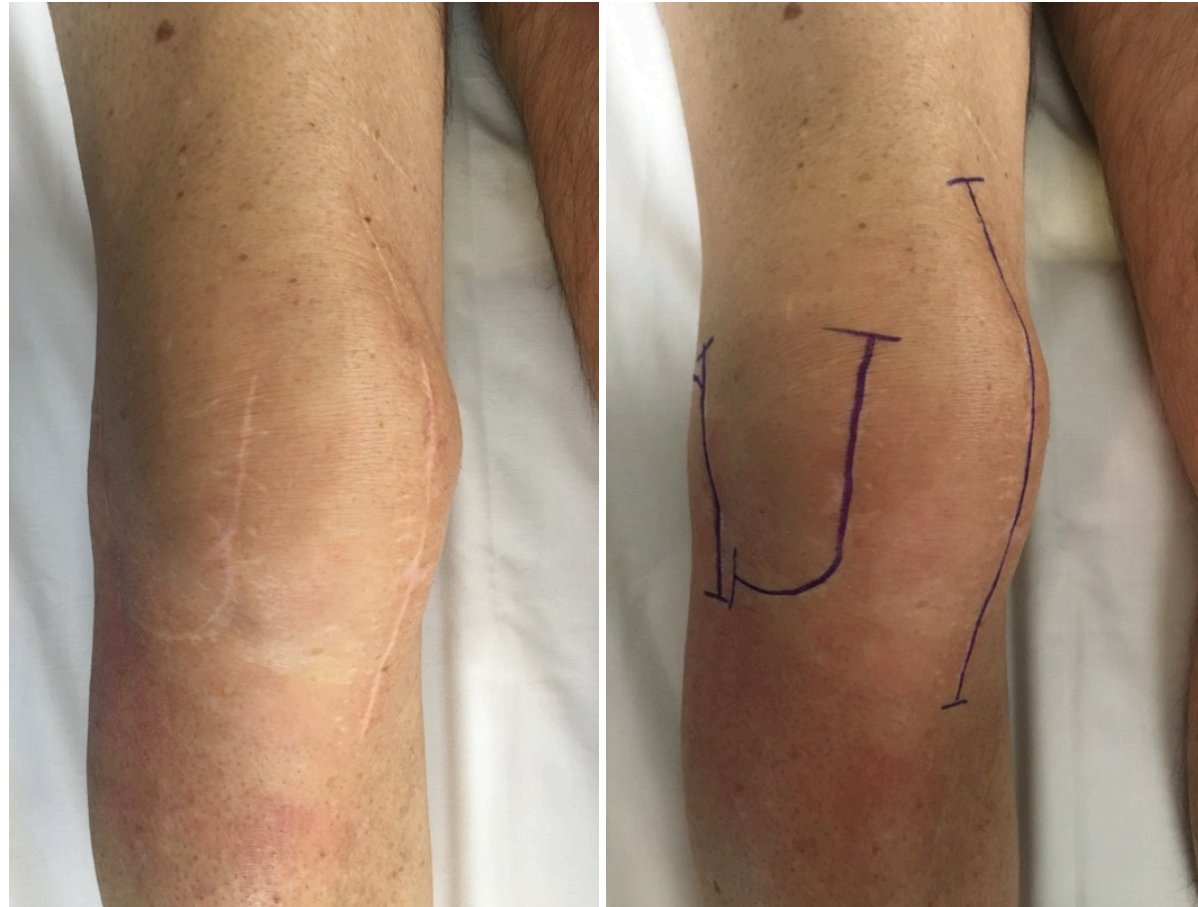
Ambroise Paré Hospital deal with quite a lot of infected TKR

Pr Thomas BAUER
Ambroise Paré University Hospital



INTRODUCTION

- TRY TO USE THE SAME INCISION
- PREFER ANTEROMEDIAL INCISION
- AVOID LARGE SUBCUTANEOUS DETACHMENT
- ANTICIPATE WOUND PROBLEMS
- KNOW GASTROCNEMIUS FLAP
- LOCAL AND GENERAL CONDITIONS
- STIFFNESS ? RETRACTIONS



AVOID THIS, THINK BEFORE !!!



Two poor vascularization bridges



HOW TO USE THE SAME INCISION

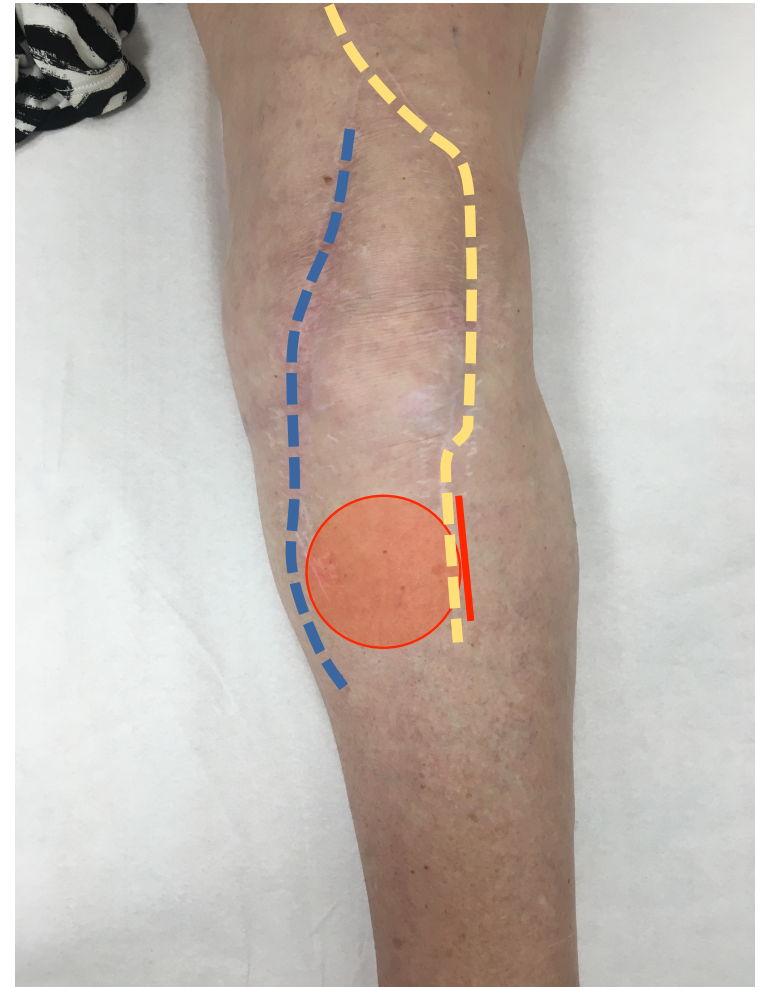
- EXTENSION OF AN ANTEROMEDIAL INCISION
 - PROXIMAL
 - DISTAL
- AVOID THIN SKIN BRIDGES AT THE EXTREMITIES OF THE INCISION
 - KEEP AT LEAST A 4 FINGERS DISTANCE BETWEEN 2 INCISIONS



4 LARGE MAN FINGERS ARE SAFER COMPARED TO 4 THIN FINGERS

HOW TO USE THE SAME INCISION

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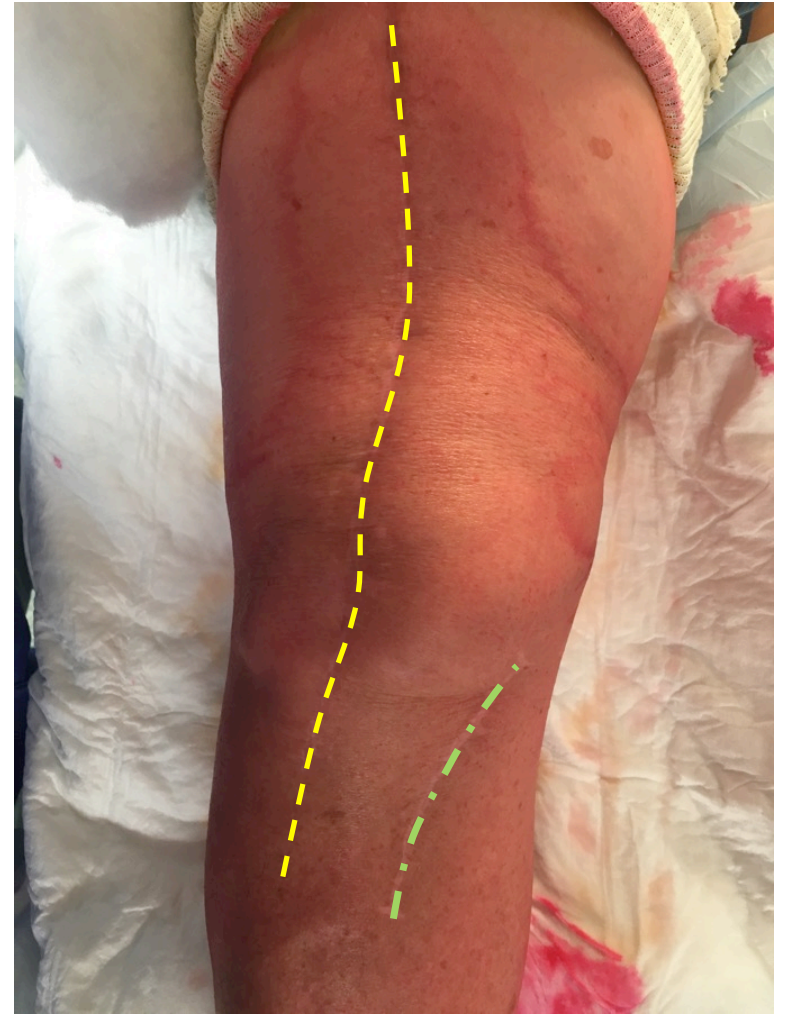
AVOID CROSSED INCISIONS

- HIGHER RISK OF NECROSIS
- MAJOR RISK ON THE TIBIAL SIDE
- LESSER RISK ON THE PROXIMAL SIDE (MUSCLES)



HOW TO USE THE SAME INCISION

- USE A **PREVIOUS INCISION** AND MAKE SUBCUTANEOUS DETACHMENT TO REACH AN ANTEROMEDIAL ARTHROTOMY
- THE RISK IS ALWAYS ON THE DISTAL PART OF THE INCISION !!!



HOW TO USE THE SAME INCISION

- USE A PREVIOUS INCISION AND MAKE SUBCUTANEOUS DETACHMENT TO REACH AN ANTEROMEDIAL ARTHROTOMY
- THE RISK IS ALWAYS ON THE DISTAL PART OF THE INCISION !!!



WHICH INCISION ?



WHICH INCISION ?



WHICH INCISION ?

?



WHICH INCISION ?

?



WHICH INCISION ?

?



PREFER ANTEROMEDIAL INCISION

- EASIER FOR TKA
- MORE ELASTIC SKIN
- ATT OSTEOTOMY (VASCULARIZED)
- BETTER QUALITY OF CLOSURE
- EASIER IF WOUND PROBLEM

EVEN IF VERY MEDIAL, AVOID A PRIMARY TKA THROUGH A LATERAL PORTAL AS IF AS POSSIBLE



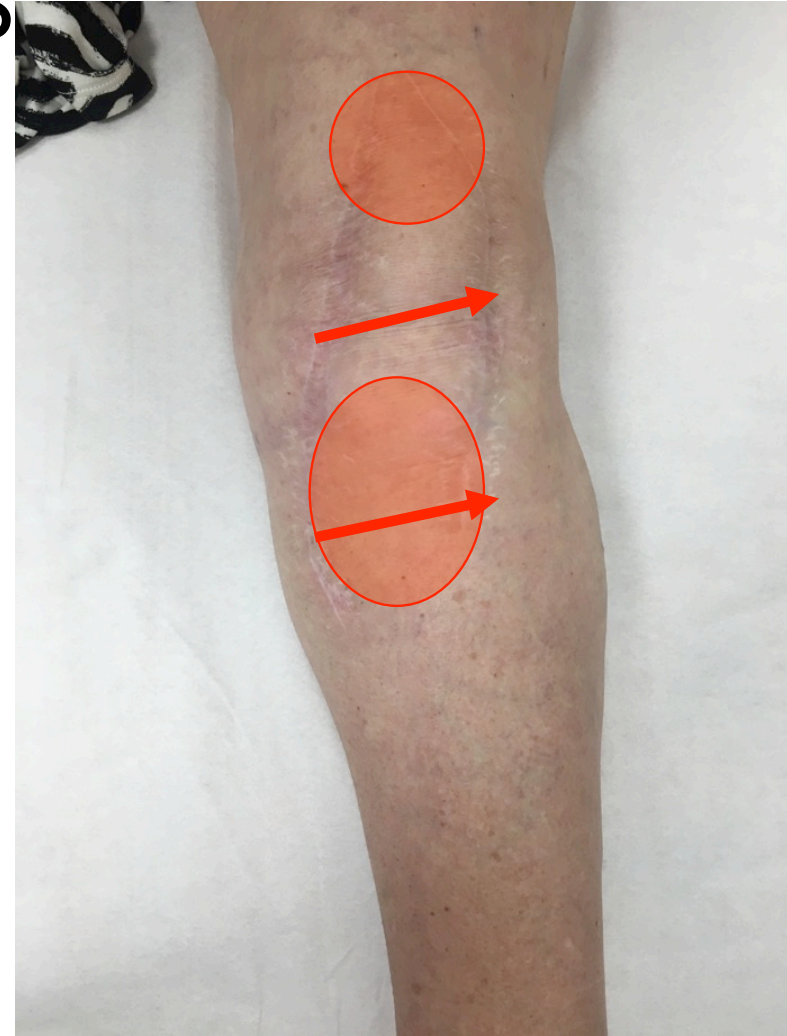
AVOID LARGE SUBCUTANEOUS DETACHMENTS

- ON THE TIBIA
- IF BAD LOCAL CONDITIONS
- IN CASE OF STIFFNESS
- ON THE PROXIMAL PART OF THE INCISION, SUBCUTANEOUS DETACHMENTS ARE LESS DANGEROUS



ANTICIPATE WOUND PROBLEMS

- DIFFICULT TO TREAT:
 - TIBIA, ATT, PATELLAR TENDON, PATELLA
 - ANTEROLATERAL INCISIONS
- EASY TO TREAT:
 - PROXIMAL
 - ANTEROMEDIAL
- TRY TO TRAP SKIN NECROSIS:
 - SUBCUTANEOUS DETACHMENT TO MAKE THE ARTHROTOMY AT DISTANCE OF A POTENTIAL SKIN PROBLEM

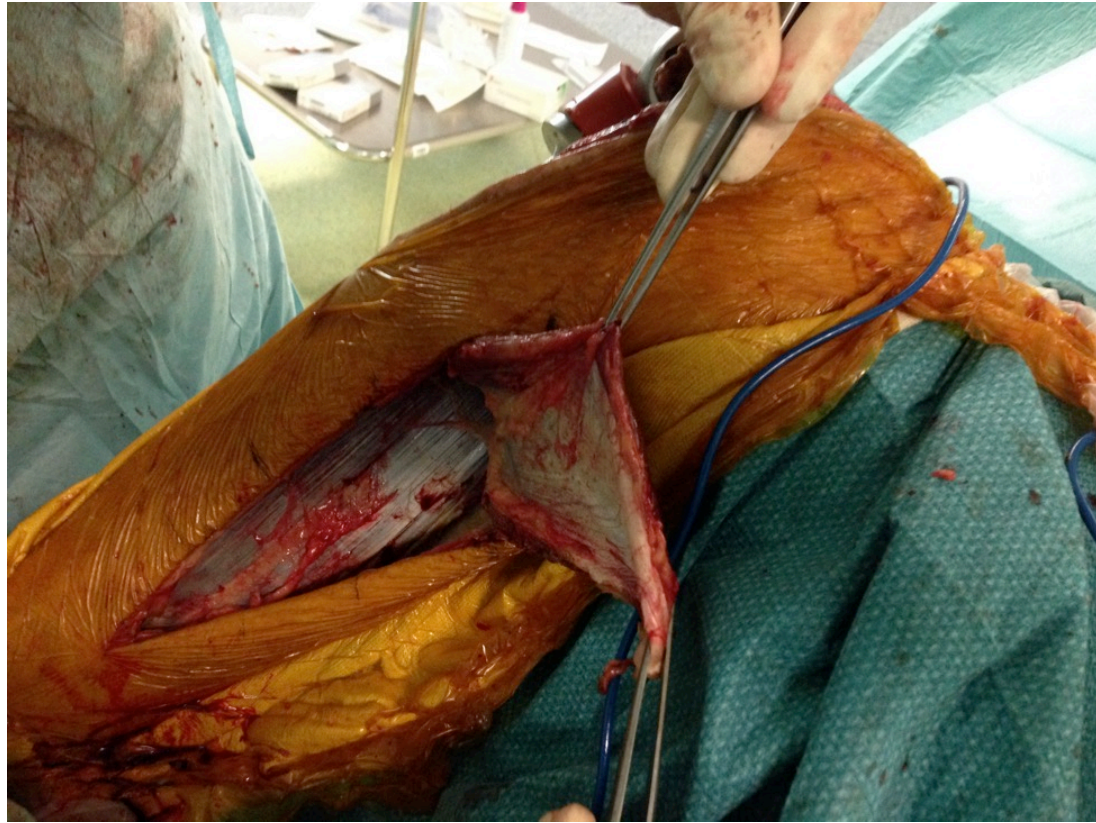
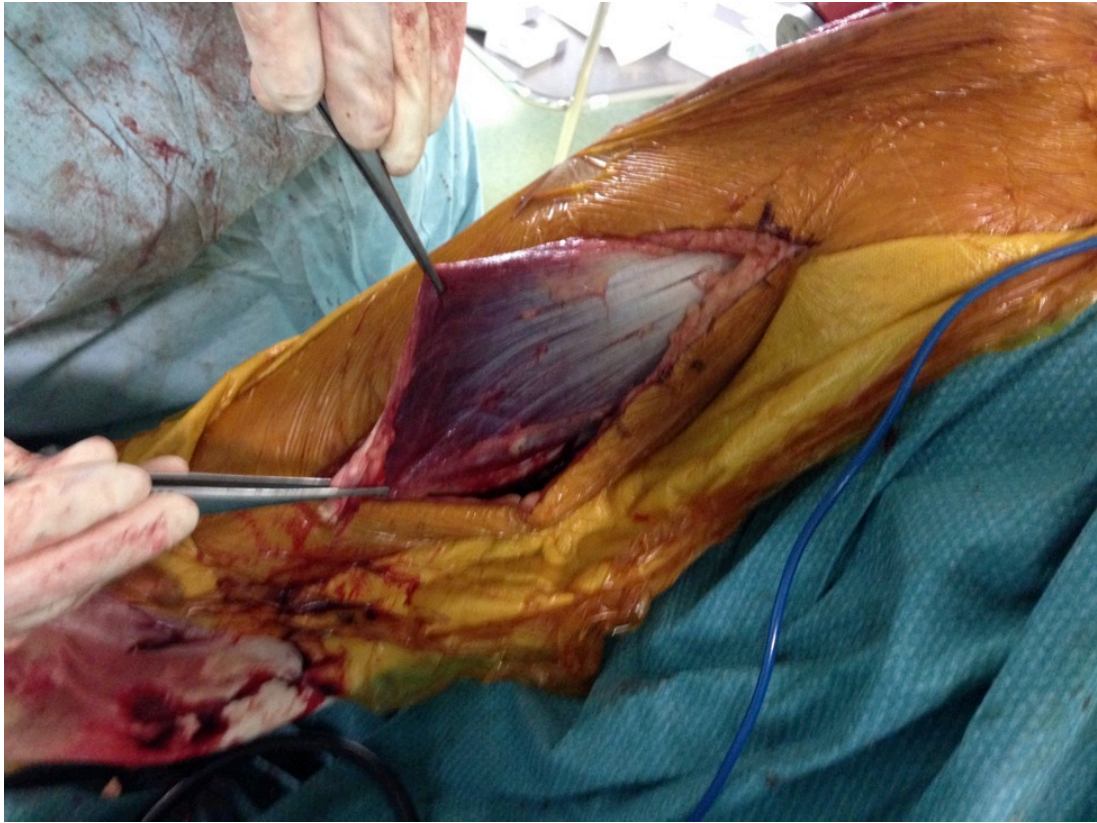


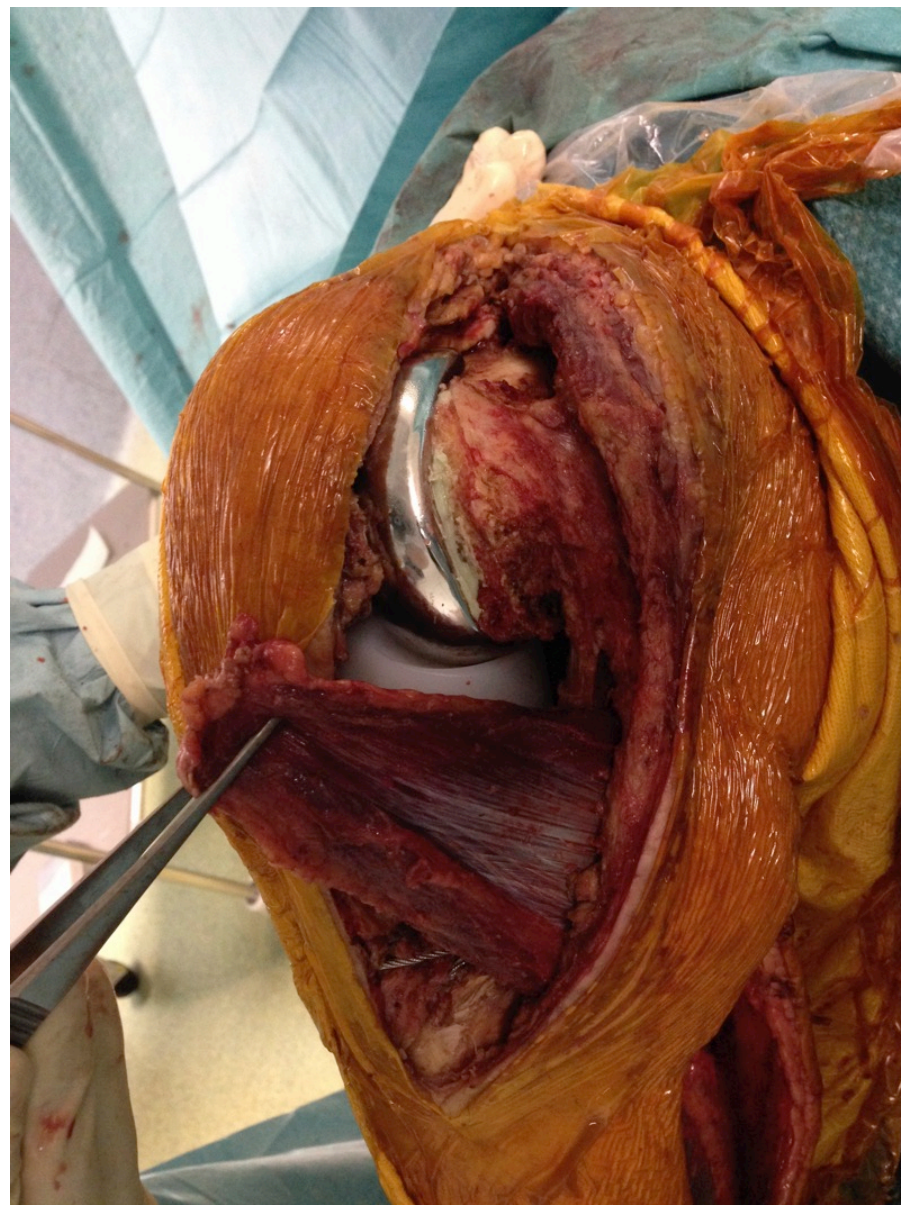
GASTROCNEMIUS FLAP

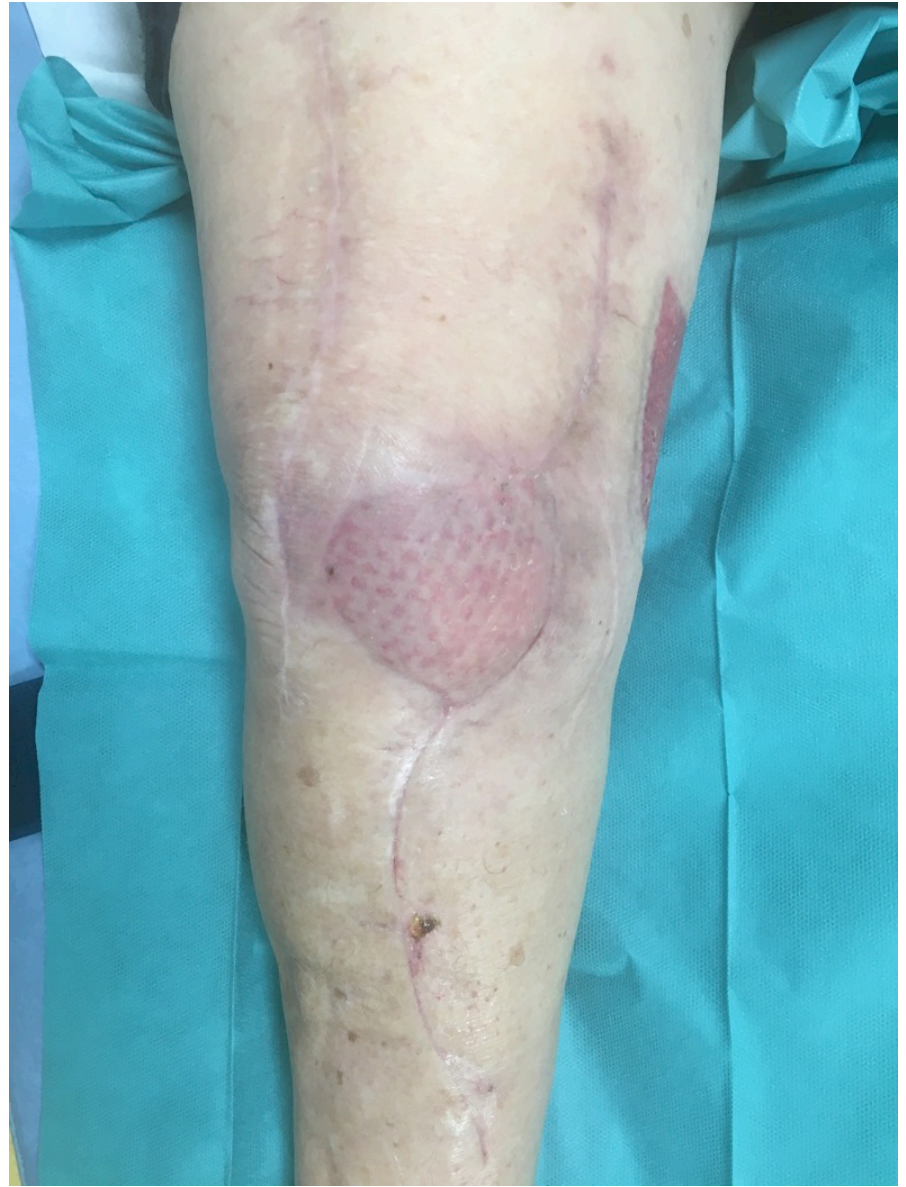
- VERY EASY
- MEDIAL GASTROCNEMIUS FLAP
 - ATT, PATELLAR TENDON, PATELLA
- LATERAL GASTROCNEMIUS FLAP
 - PATELLA AND MORE PROXIMAL
 - COMMON FIBULAR NERVE DISSECTION
- AT CLOSURE IF YOU HESITATE TO DO A GASTROCNEMIUS FLAP, DO IT !

**IF IT IS DIFFICULT TO CLOSE,
DO A GASTROCNEMIUS FLAP IMMEDIATELY !**









LOCAL FASCIO-CUTANEOUS FLAP



AND NOW ??

- A GASTROCNEMIUS FLAP IS ALWAYS RE-USABLE
- FASCIOCUTANEOUS LOCAL FLAP
- FREE FLAP

**REUSABLE GASTROCNEMIUS FLAP
+ LOCAL FASCIOCUTANEOUS FLAP**



CONCLUSION

- USE THE SAME INCISION IF POSSIBLE
- PREFER THE ANTEROMEDIAL INCISION
- DON'T WAIT FOR NECROSIS BUT ANTICIPATE IT
- IF DIFFICULTY FOR CLOSURE, DO IMMEDIATELY A GASTROCNEMIUS FLAP
- EVERY KNEE SURGEON SHOULD KNOW HOW TO DO A MEDIAL GASTROCNEMIUS FLAP



CONCLUSION

Sometimes more difficult to manage than the prosthesis itself

Many problems could be avoid by simple principles:

- From arthroscopy to prosthesis : use LONGITUDINAL (and median) incisions
- Re-use previous incisions
- Be carefull at the distal part

If you know one procedure : **GASTROCNEMIUS FLAP**

Have good and easy connection to plastic surgeons ... or with septic reference center

