



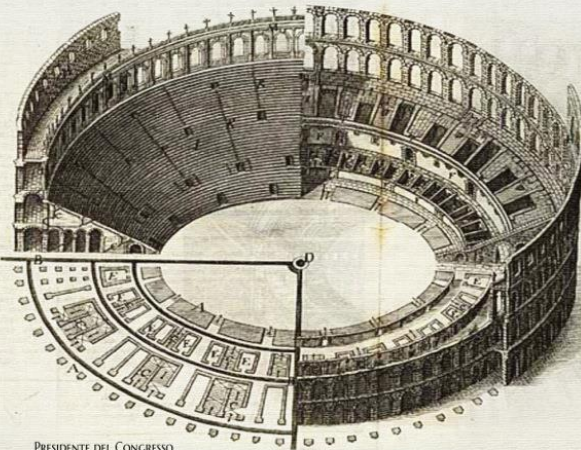
ASSOCIAZIONE ITALIANA
RIPROTESIZZAZIONE

IX CONGRESSO NAZIONALE

PRESIDENTE A.I.R. GIUSEPPE SOLARINO

IL RECUPERO DELLE GEOMETRIE ARTICOLARI
NELLE REVISIONI PROTESICHE

VERONA | GRAN GUARDIA | 7-8 MARZO 2024



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VILLA VERDE

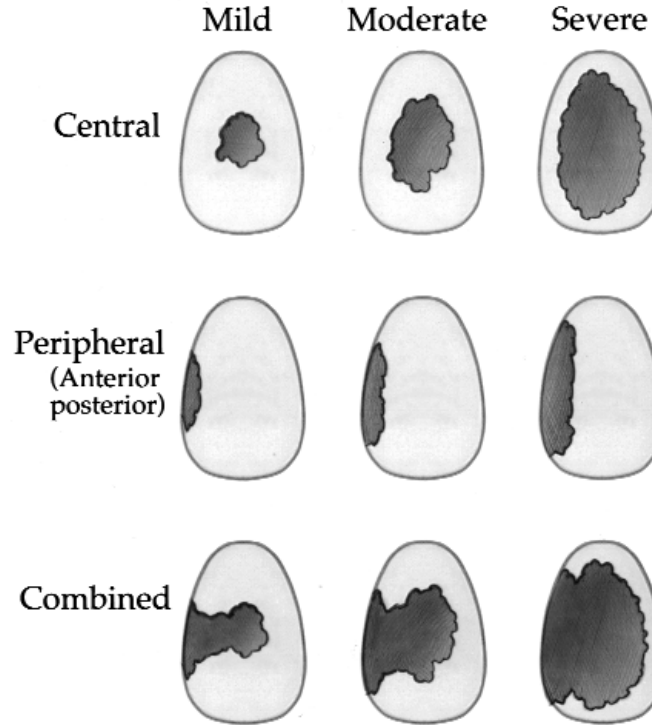

VILLA MARIA CECILIA
HOSPITAL
GRUPPO VILLA MARIA

Challenges in Reverse Shoulder Arthroplasty: Addressing Glenoid Bone Loss

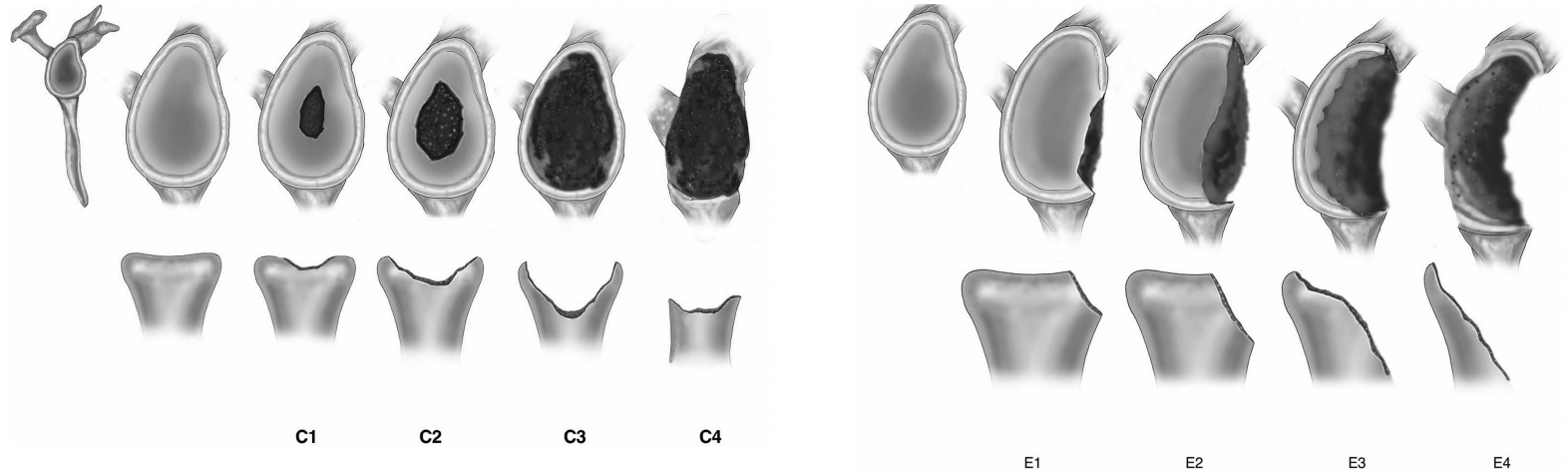
ADAM J. SEIDL, MD; GERALD R. WILLIAMS, MD; PASCAL BOILEAU, MD

Glenoid bone loss is not uncommon in patients undergoing primary or revision RSA. Failure to appreciate and address glenoid bone loss during RSA can lead to improper baseplate positioning and early failure or complications such as dislocation or scapular notching.

Antuna classification



Seebauer classification



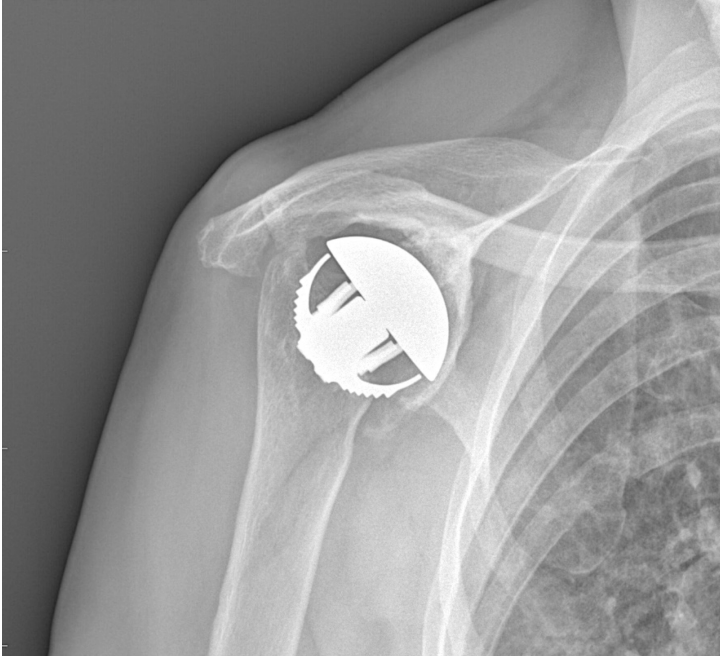
Gupta A, Thussbas C, Koch M, Seebauer L (2017) Management of glenoid bone defects with reverse shoulder arthroplasty—surgical technique and clinical outcomes. *J Shoulder Elbow Surg* 27(5):853–862

Clinical Case

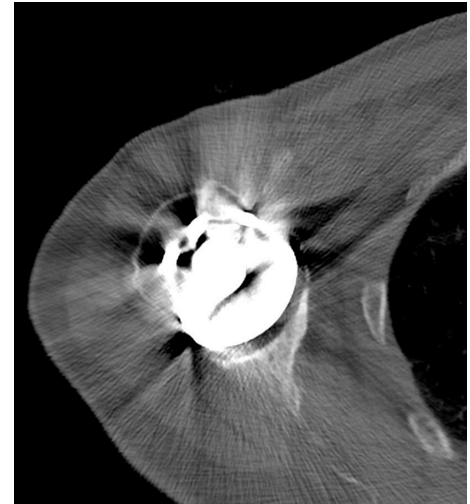
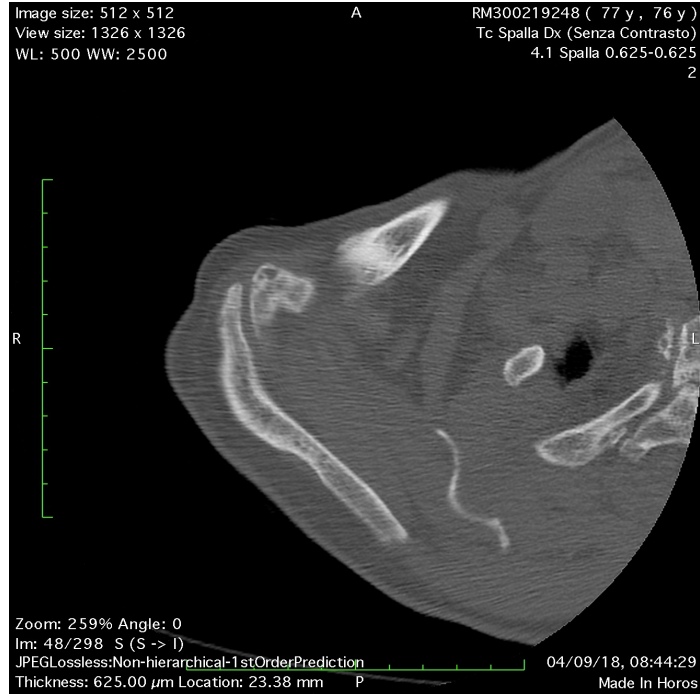
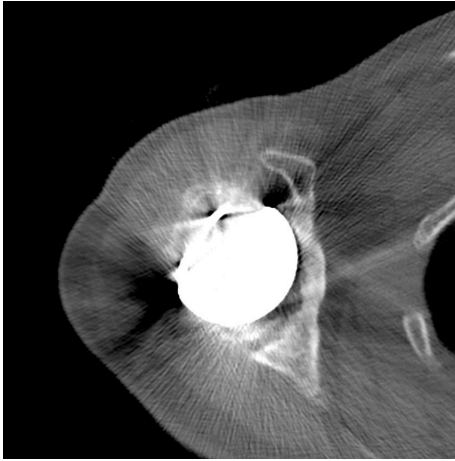
- Female 77 y old, retired
- Previous surgery (2008): hemiarthroplasty
TESS stemless right
- Difficulty using arm for daily tasks, severe
pain on daily basis
- CONSTANT'S SCORE: 23
(PAIN 0, ADL 12, ROM 10, STRENGTH 1)
FF 80° , LE 60° , IR battock,
ER hand behind head, elbow forward



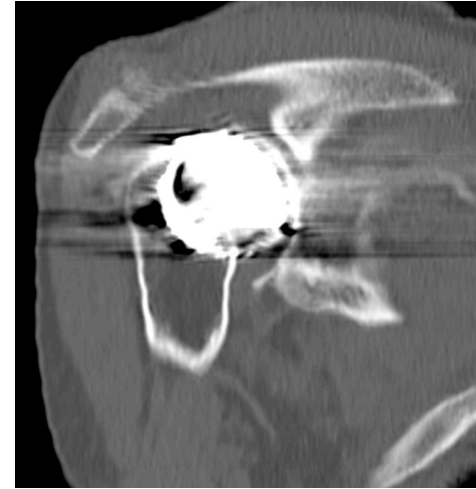
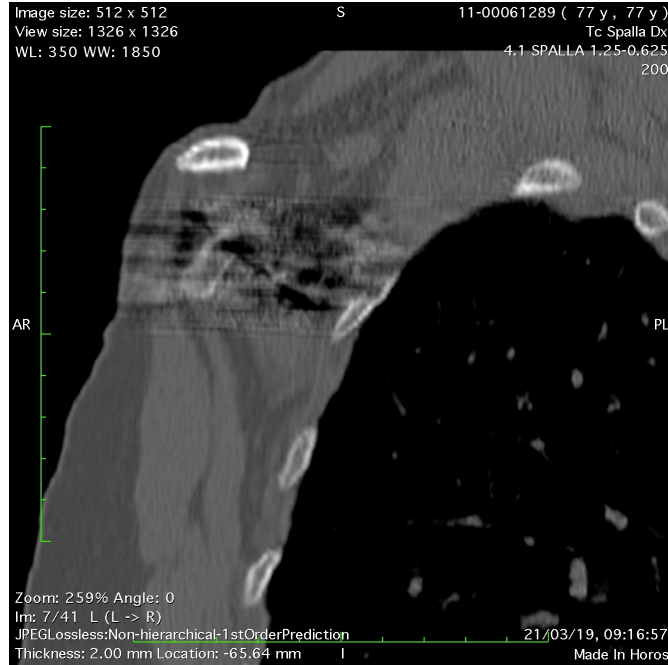
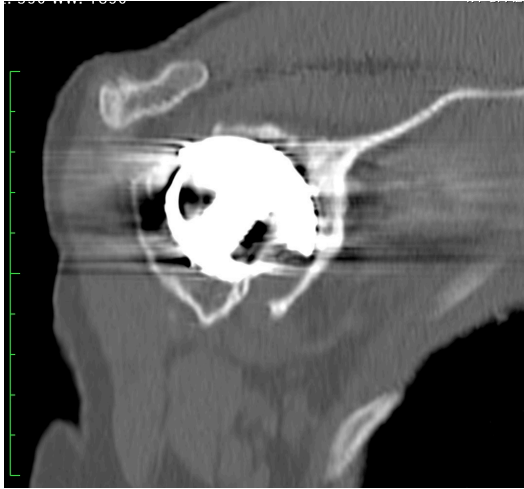
X-ray



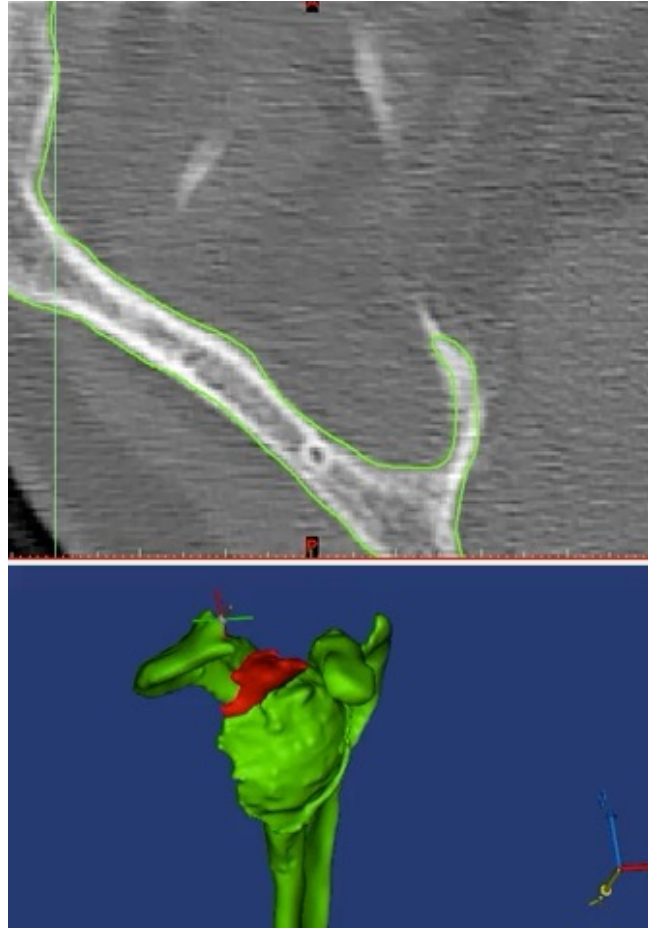
CT scan



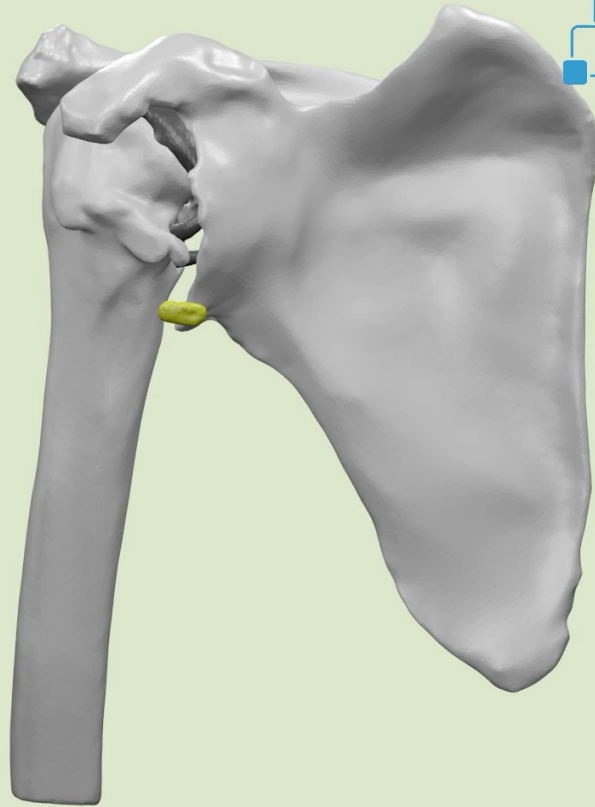
CT scan



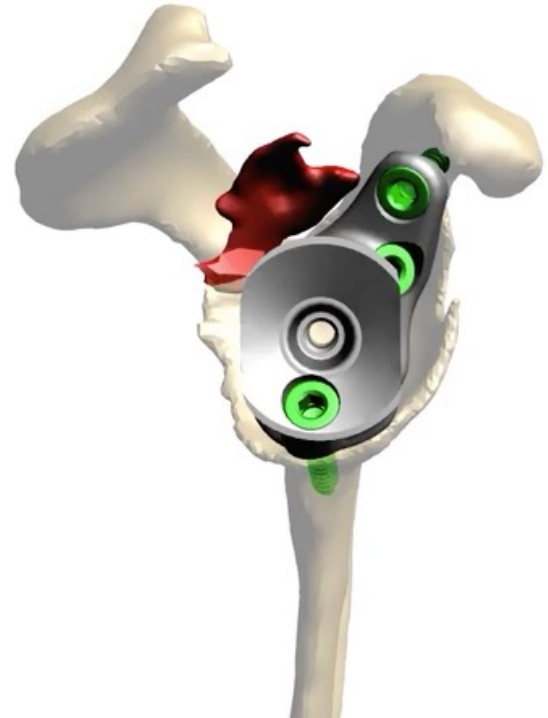
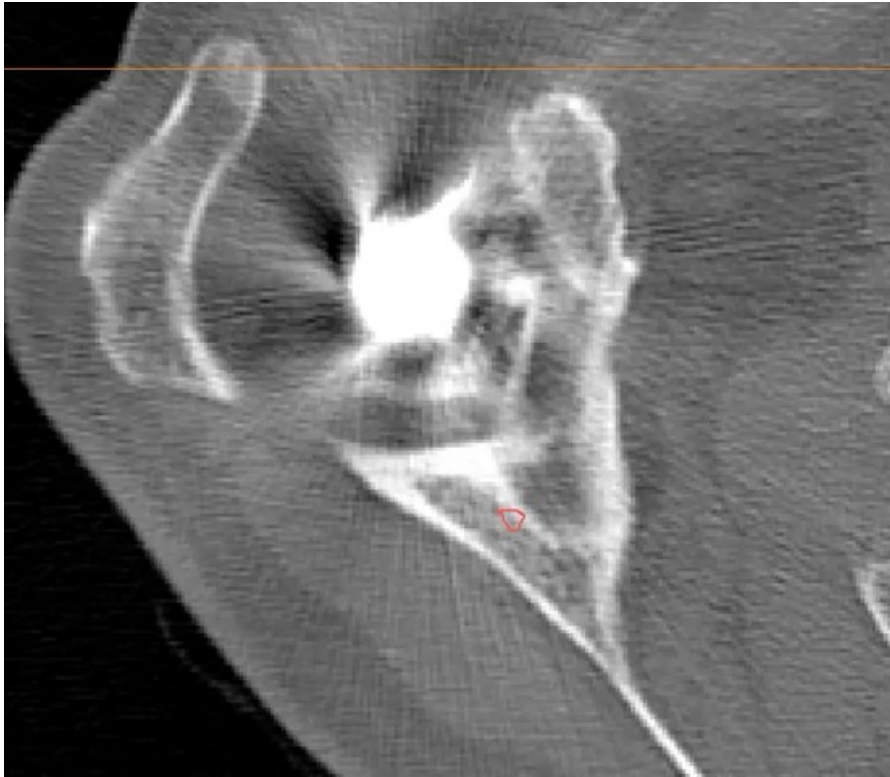
CT scan

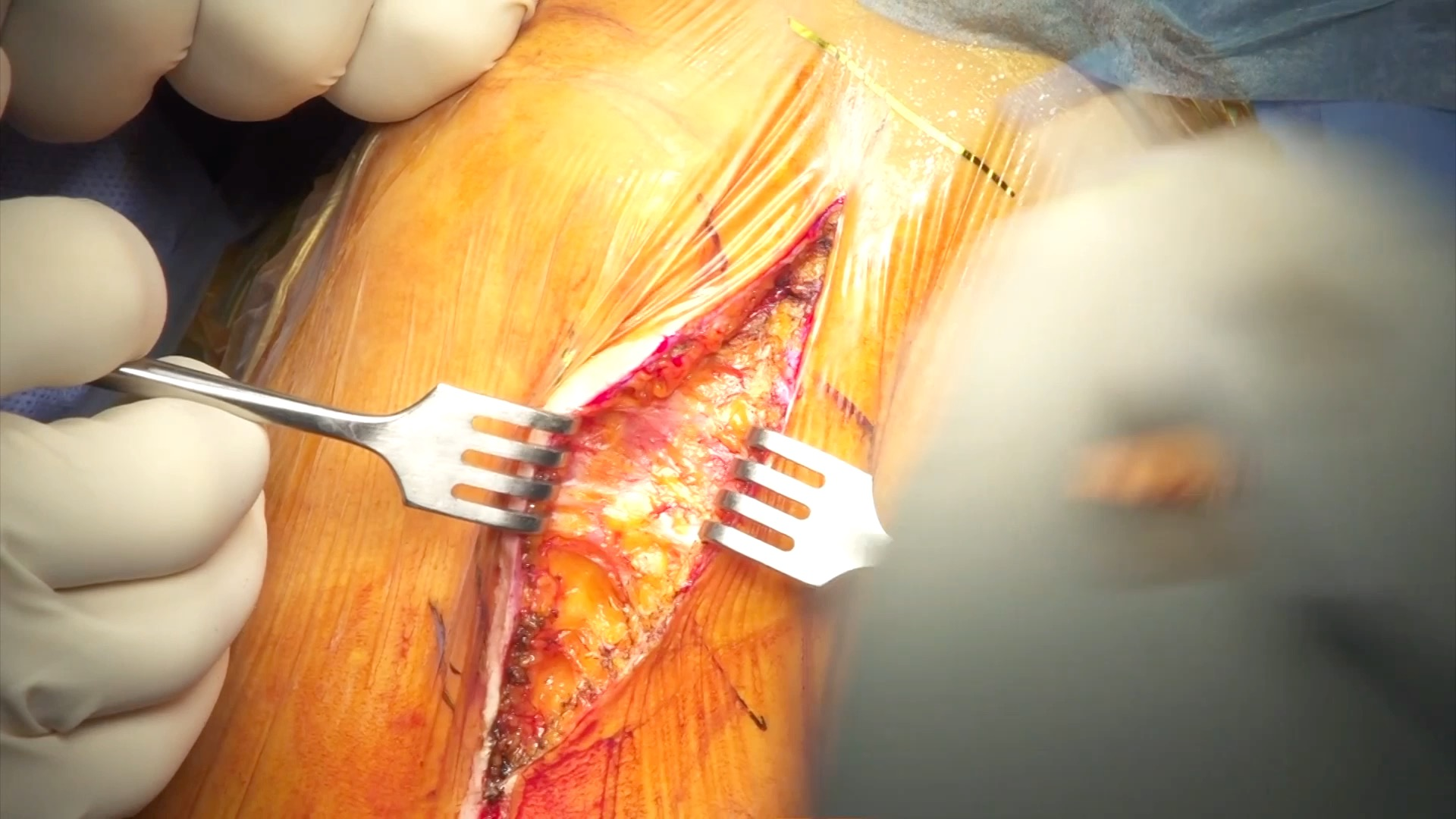


3D reconstruction

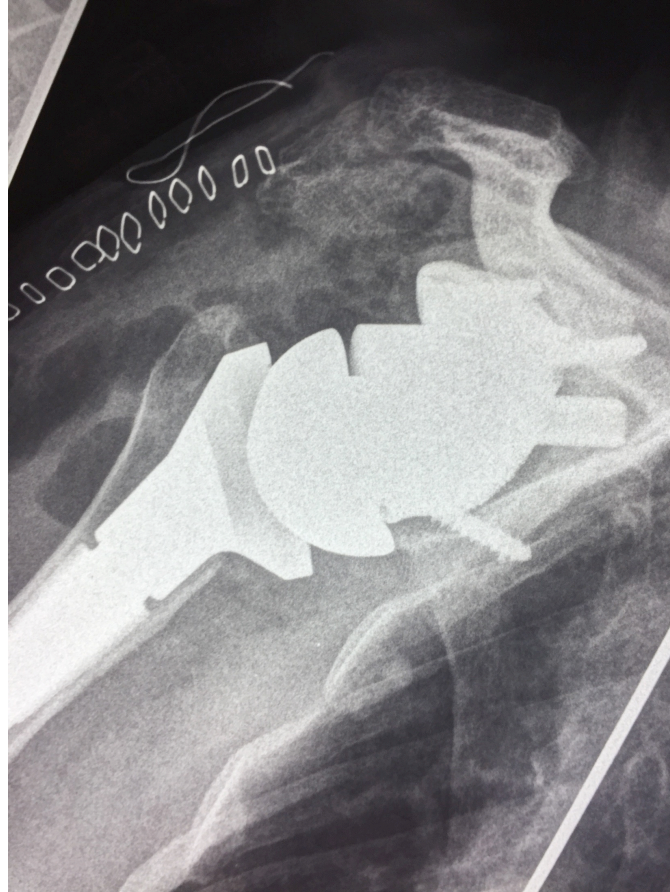


Promade

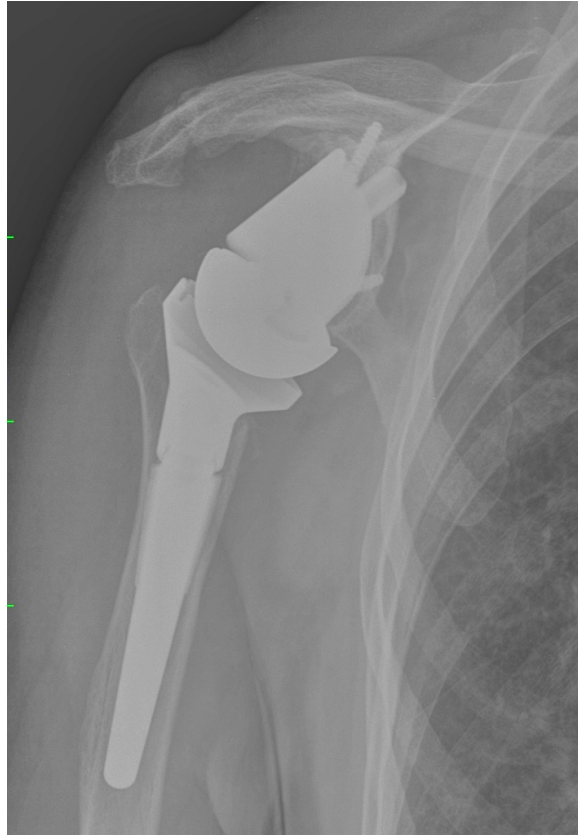




X-ray post-op



X-ray 1y

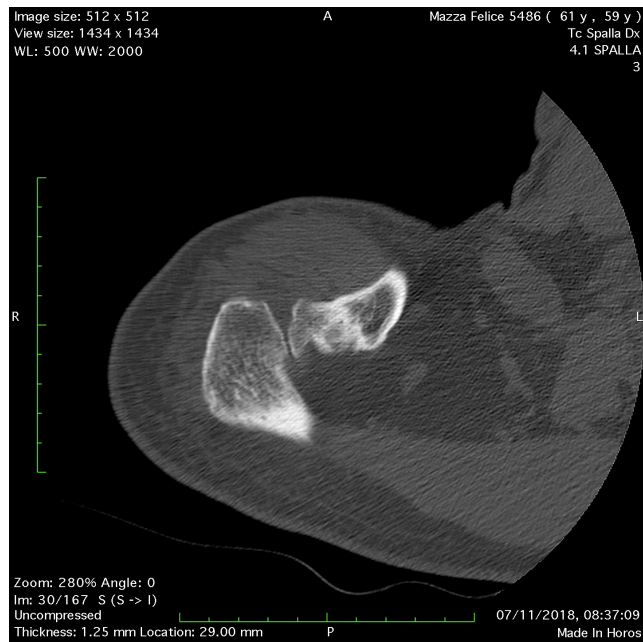
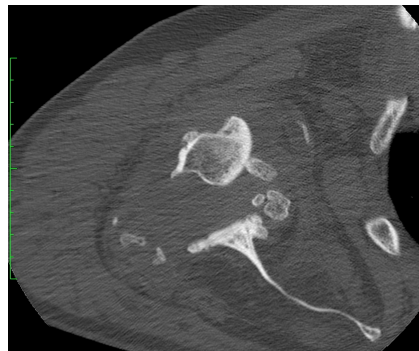


Clinical case

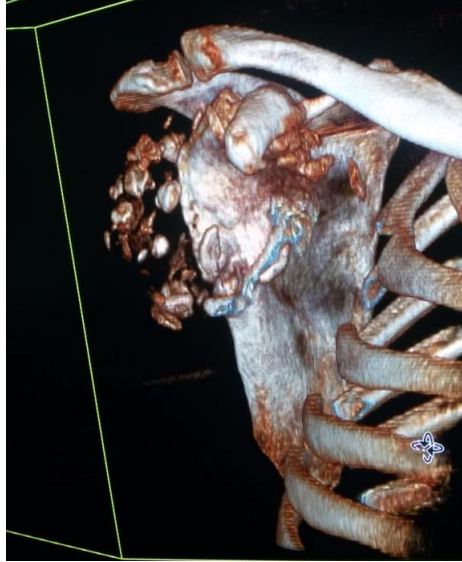
Male 60 y old, farmer



CT scan



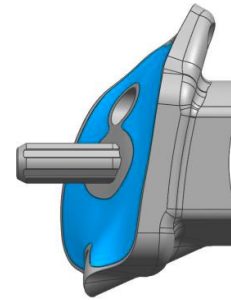
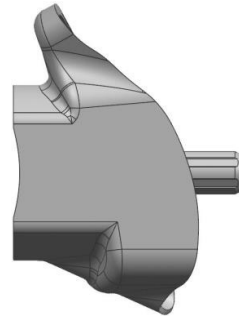
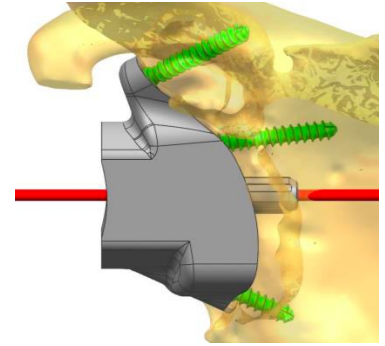
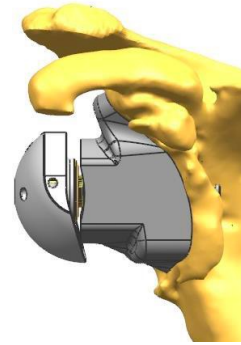
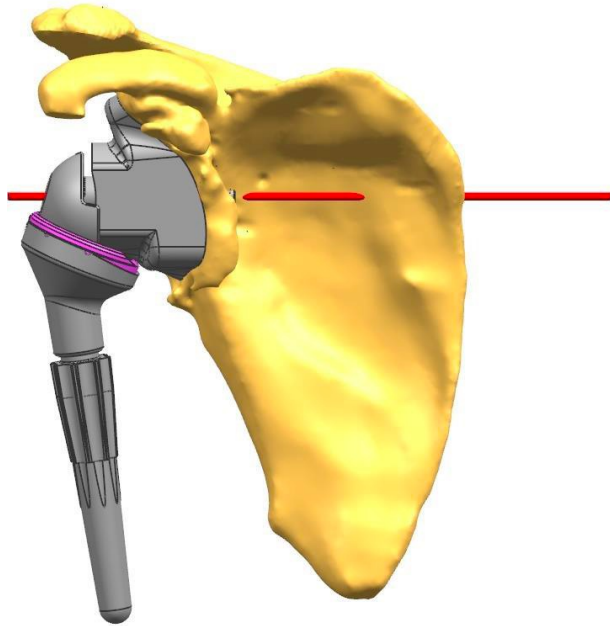
3D reconstruction



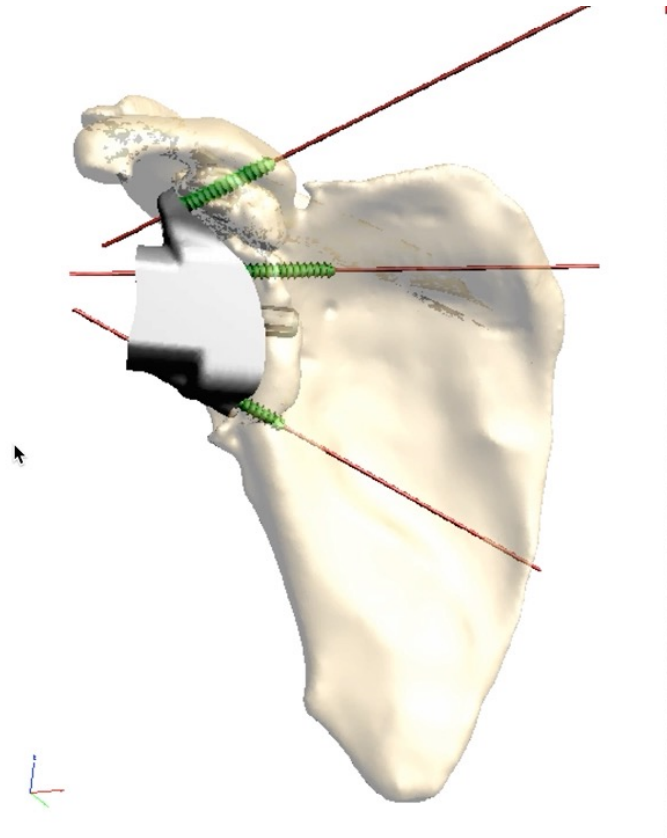
3D reconstruction



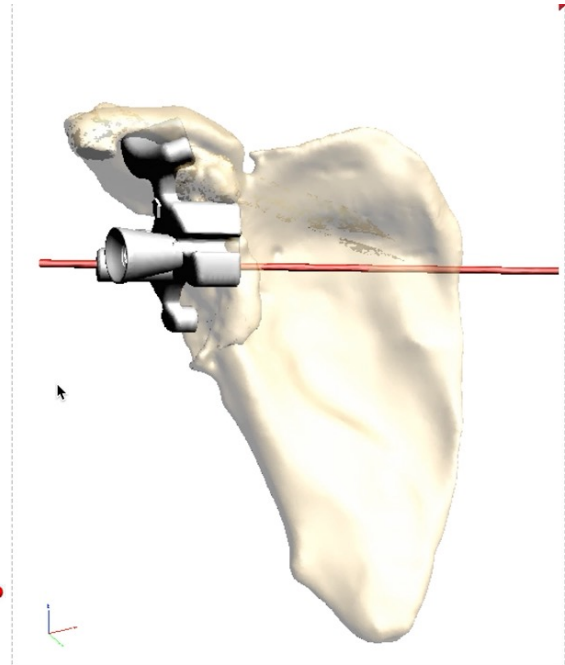
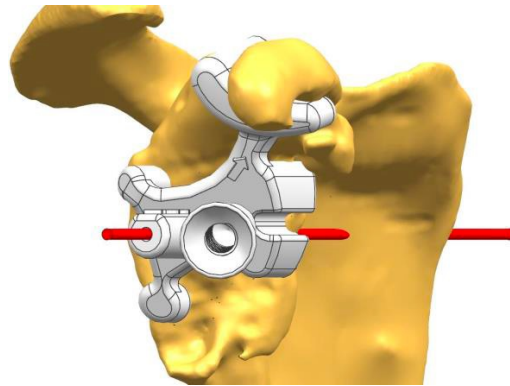
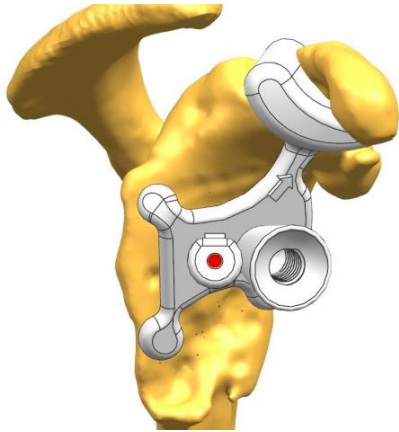
Promade



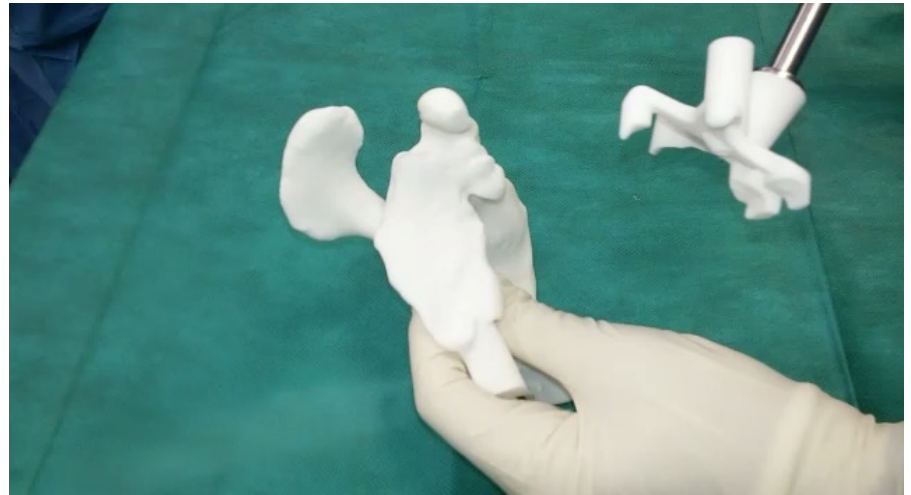
Promade



PSI



Promade 3D Modelling



X-ray post-op



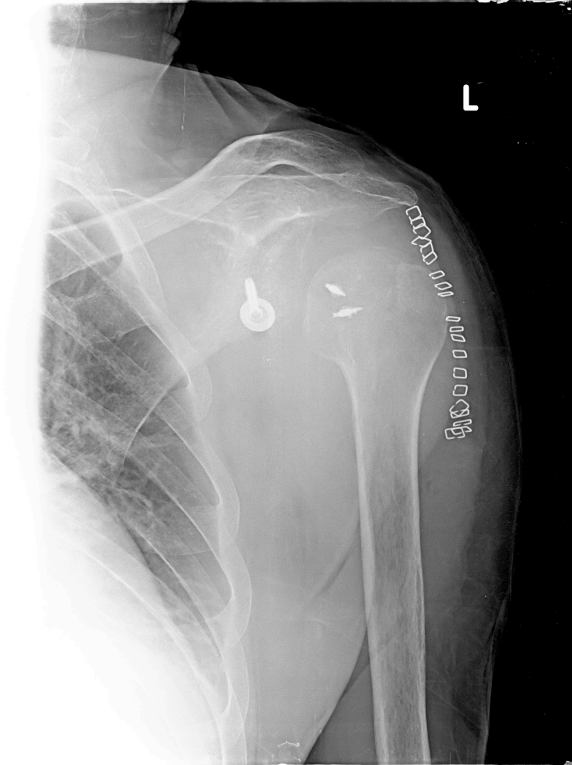
clinical checkup after 1 year



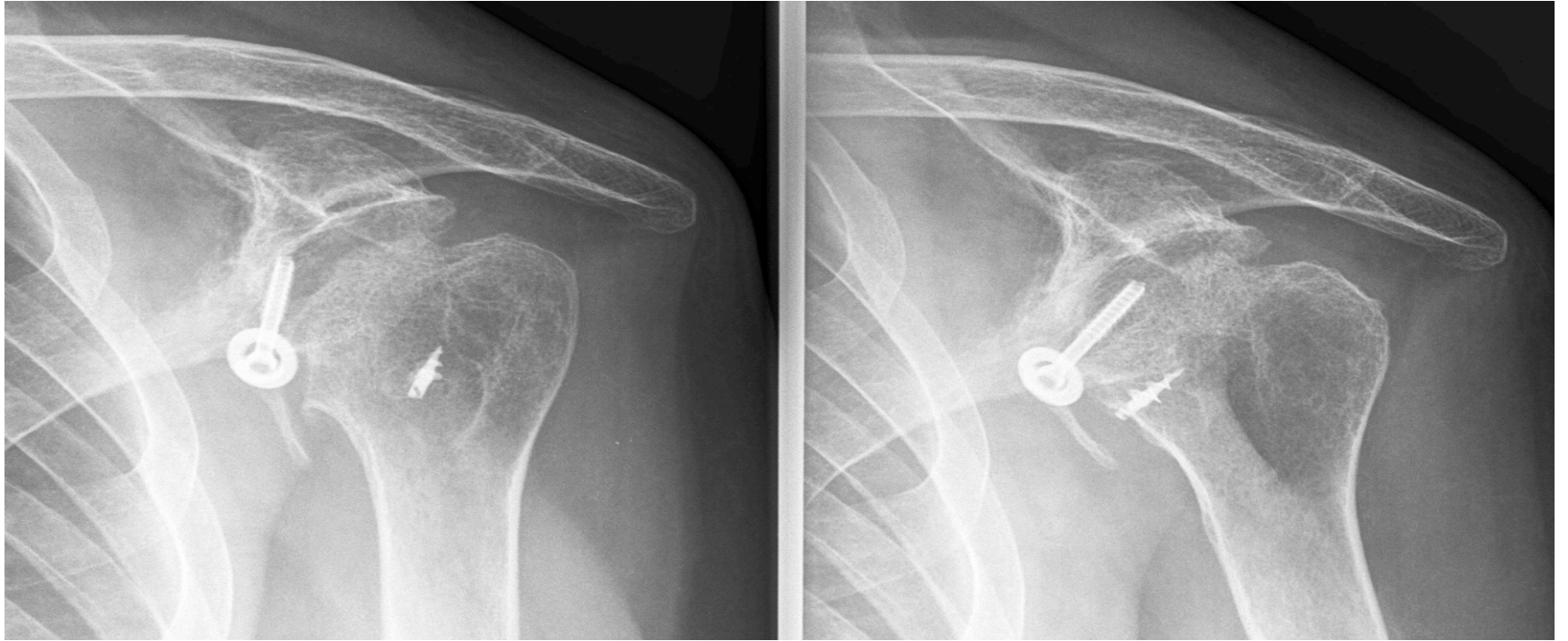
Clinical case

- man, 54 years old
- manual worker
- non-dominant limb
- Pseudoparalytic shoulder: Constant score 11
- HIV +, HCV +

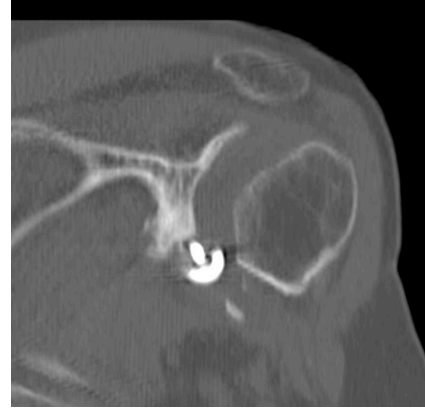
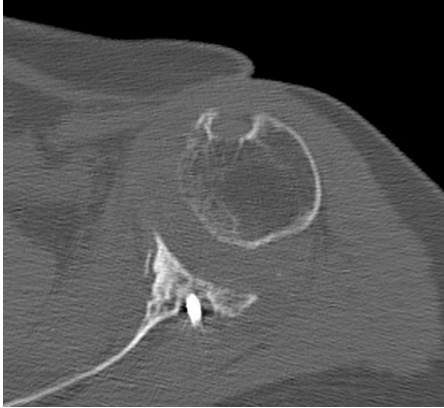
2013 latarjet surgery



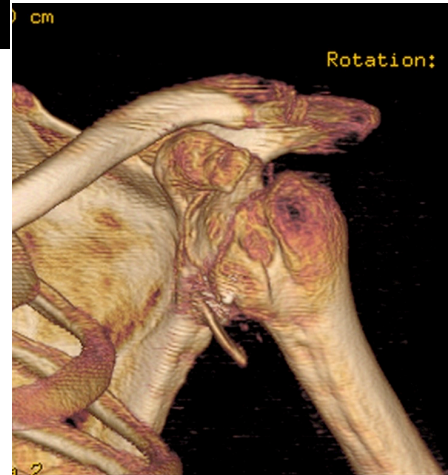
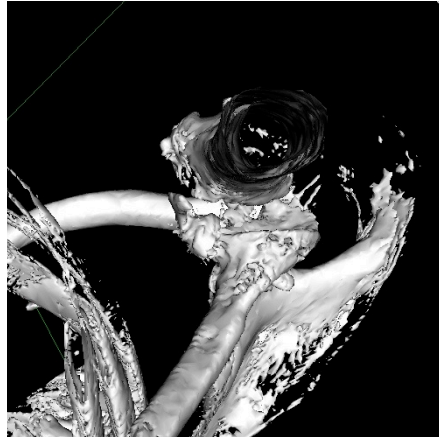
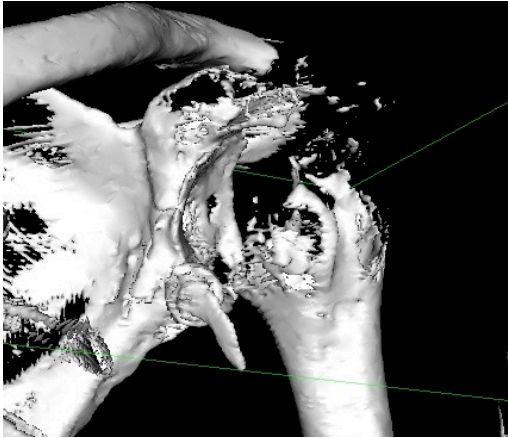
2015: X-ray



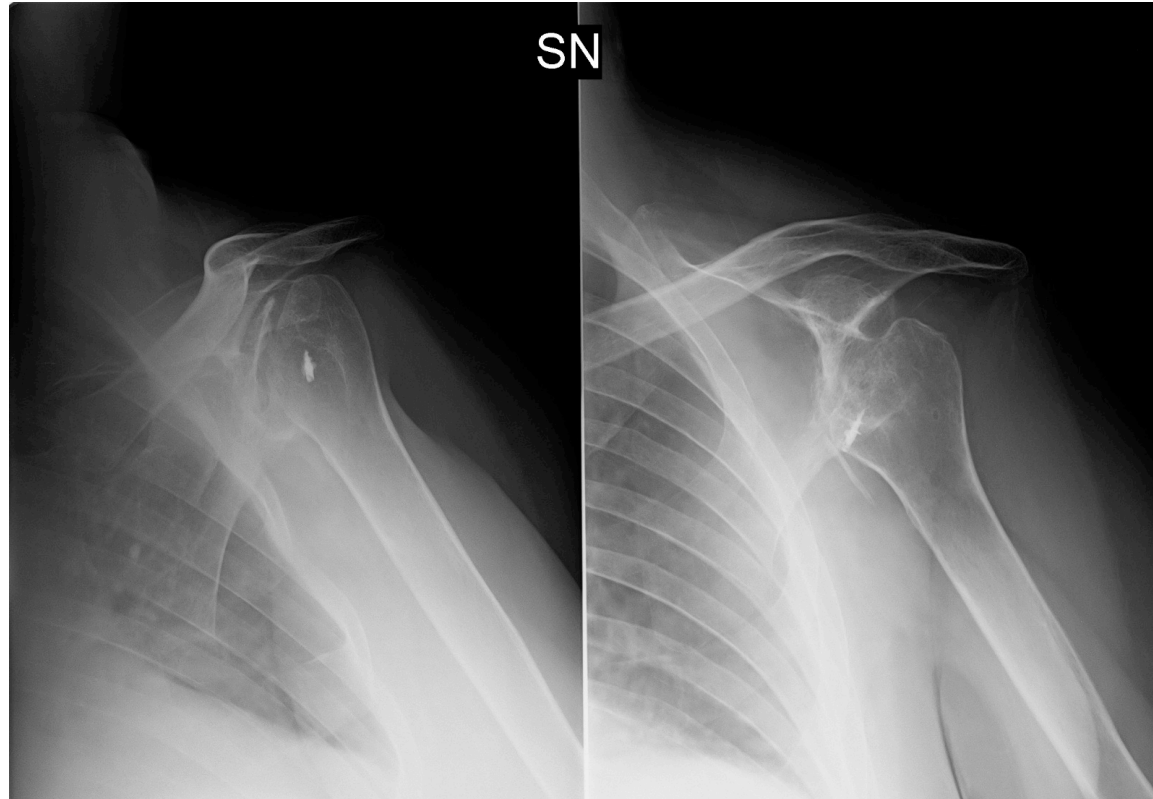
2015: CT scan



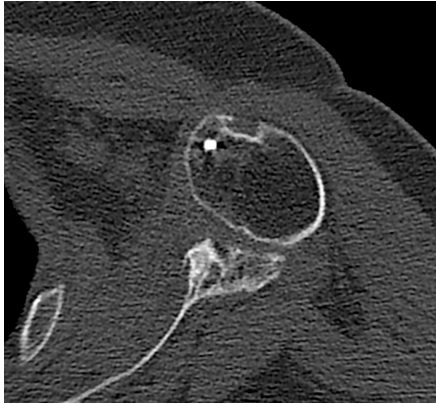
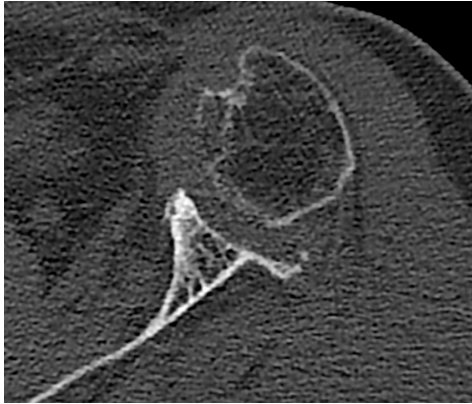
2015: 3D reconstruction



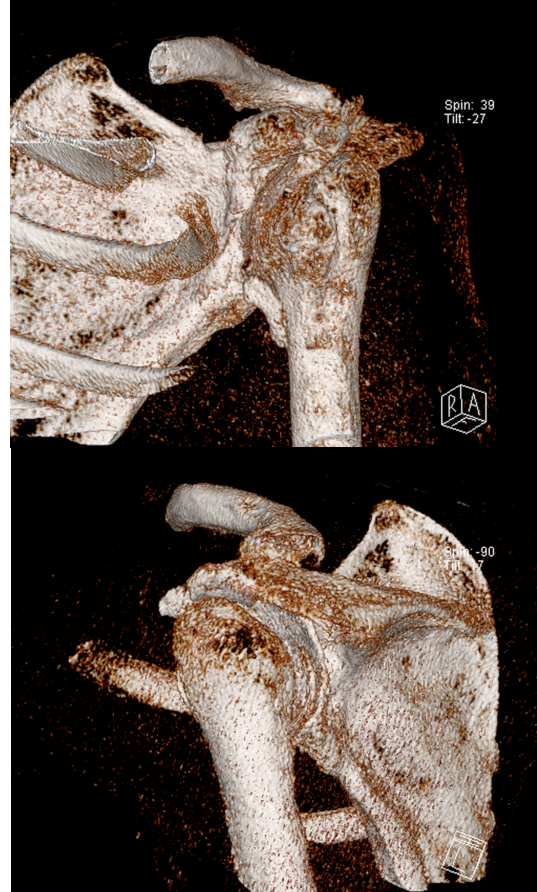
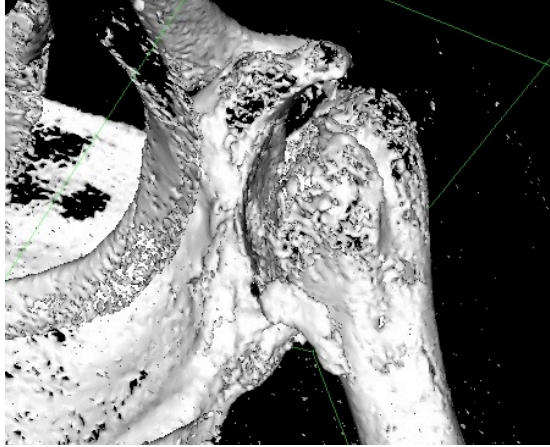
2016: Screw removal surgery



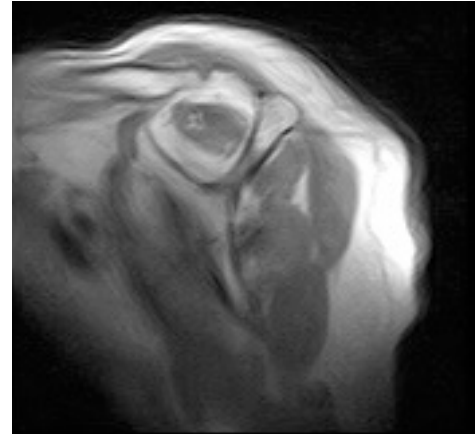
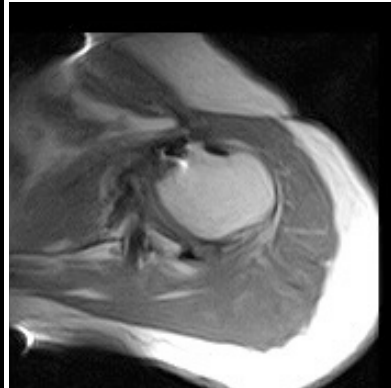
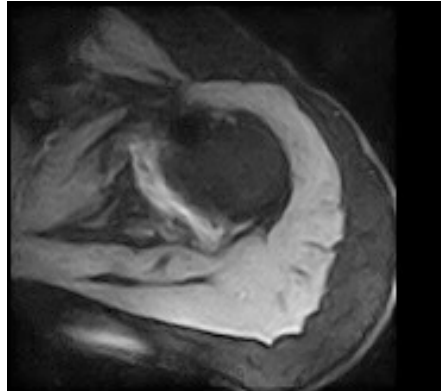
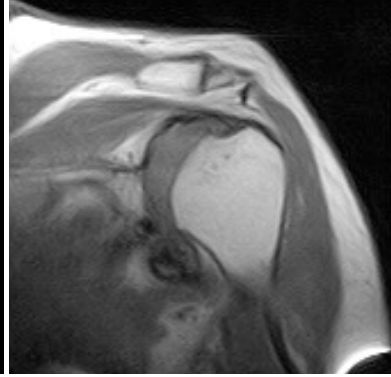
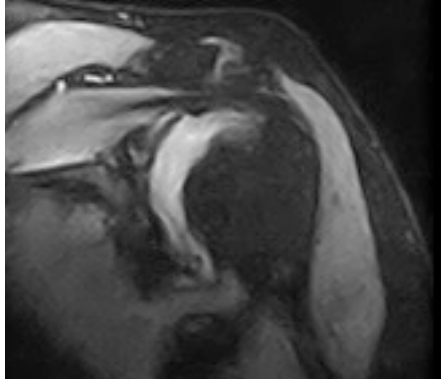
2017: CT scan



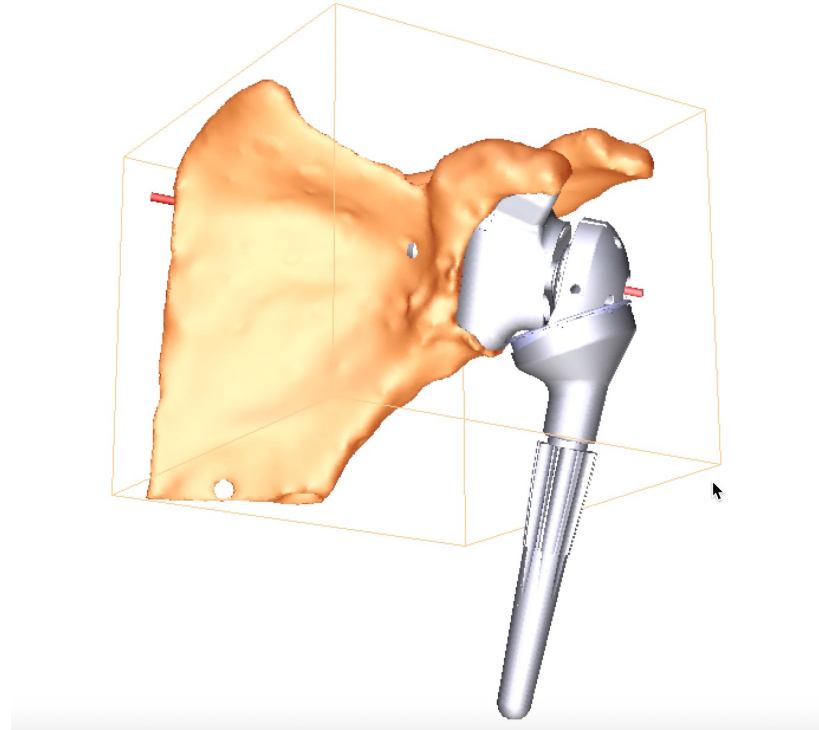
2017: 3D Reconstruction



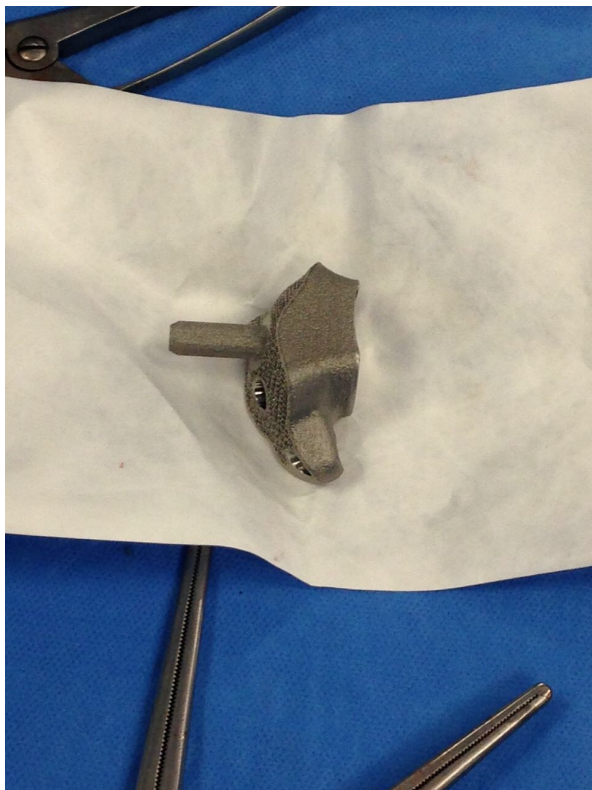
2017: MR



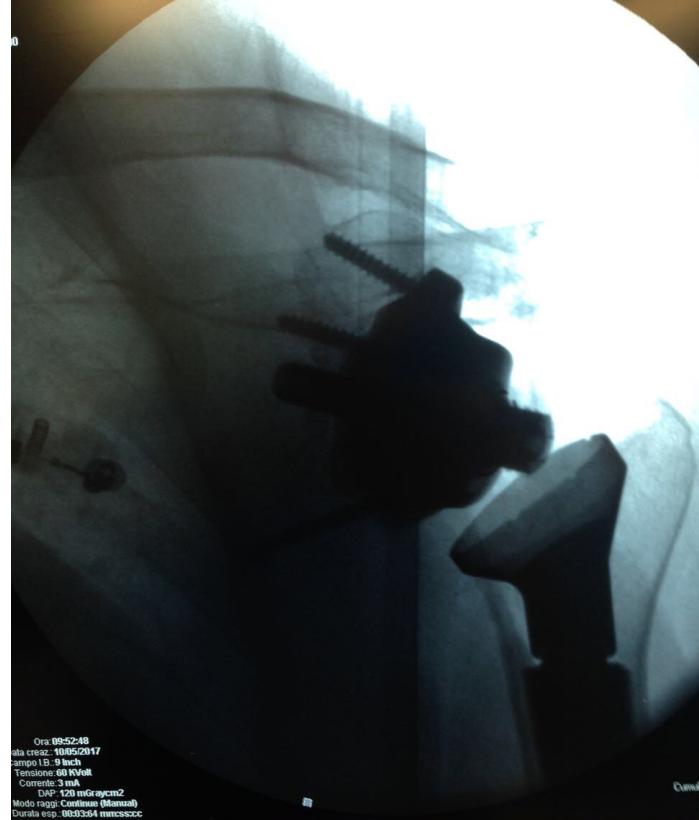
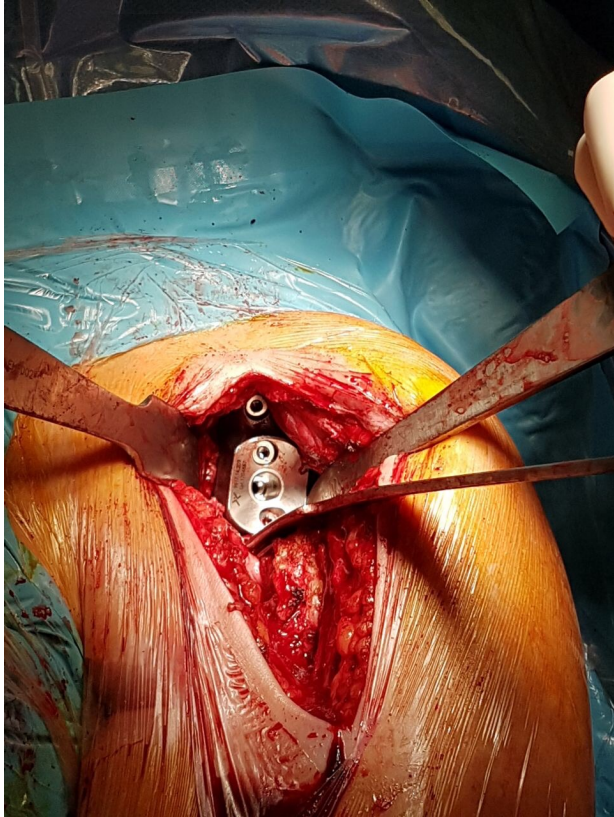
Preoperative planning



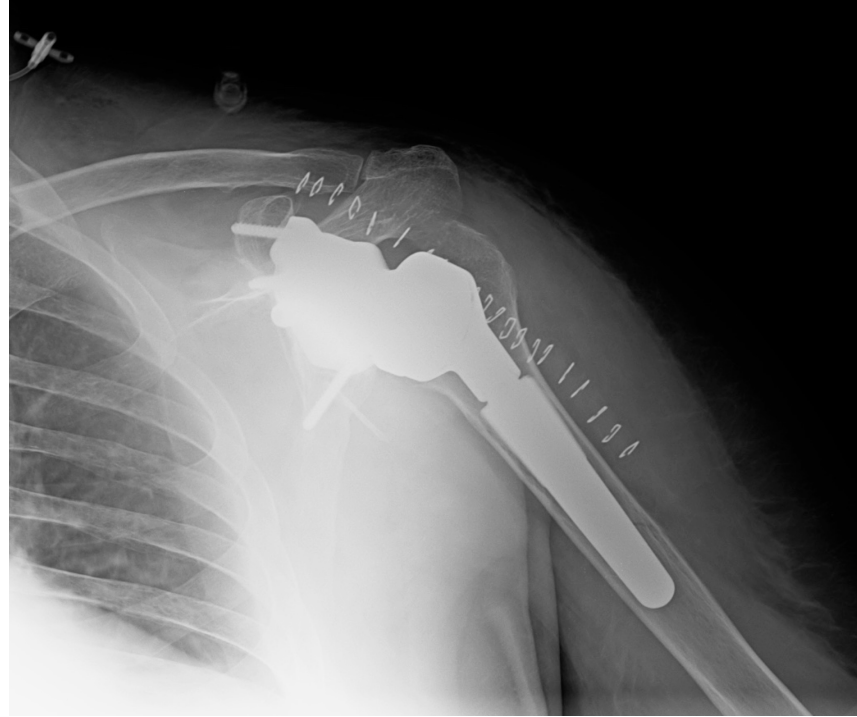
Surgery



Surgery



X-ray post-op

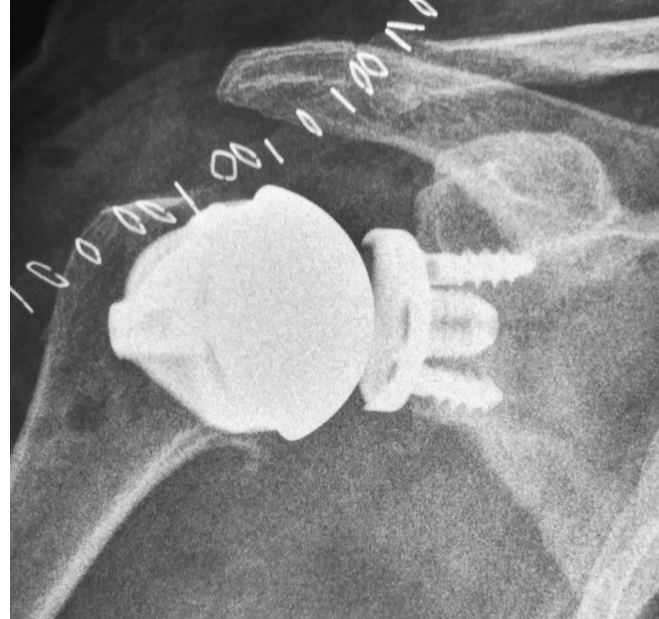
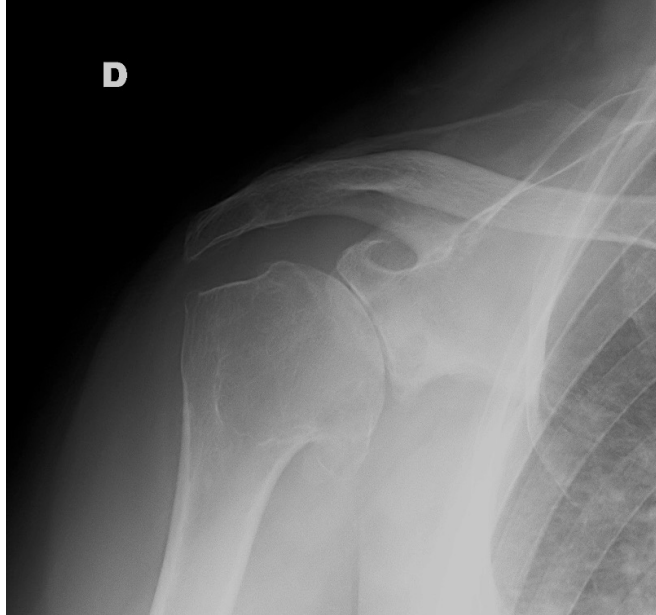


checkup after 2 year



Clinical Case

- Female 70 y old, retired
- First surgery (2018): TSA stemless LIMA



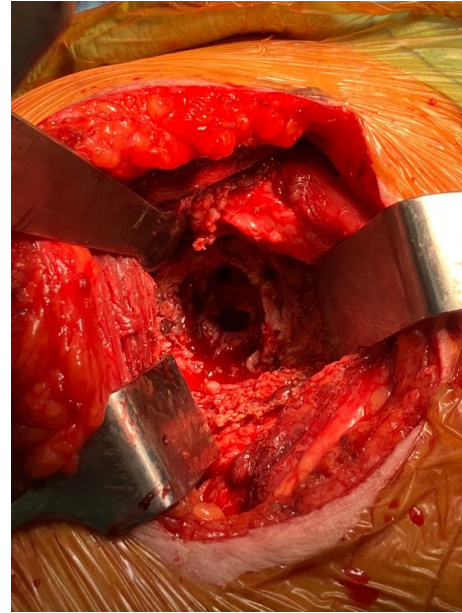
Clinical Case

Second surgery (2018): failure subscap → RSA stemless LIMA



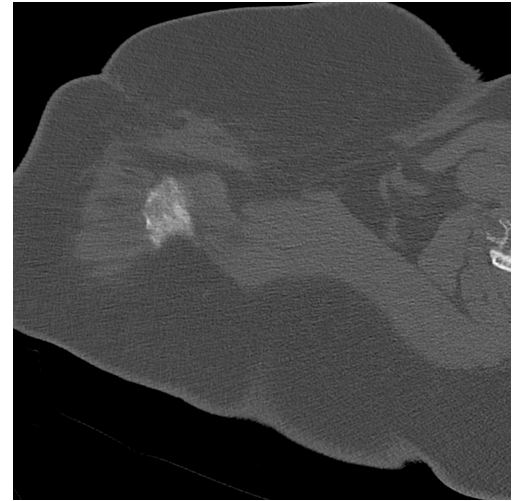
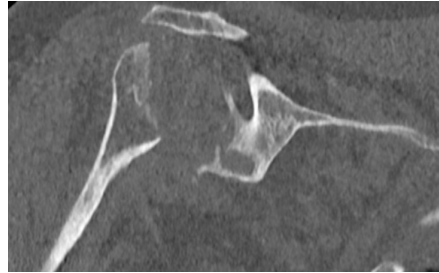
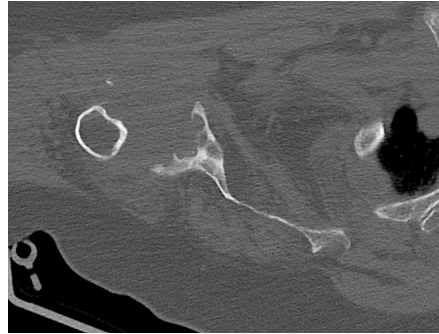
Clinical Case

Third surgery (2022): infection → prosthetic removal



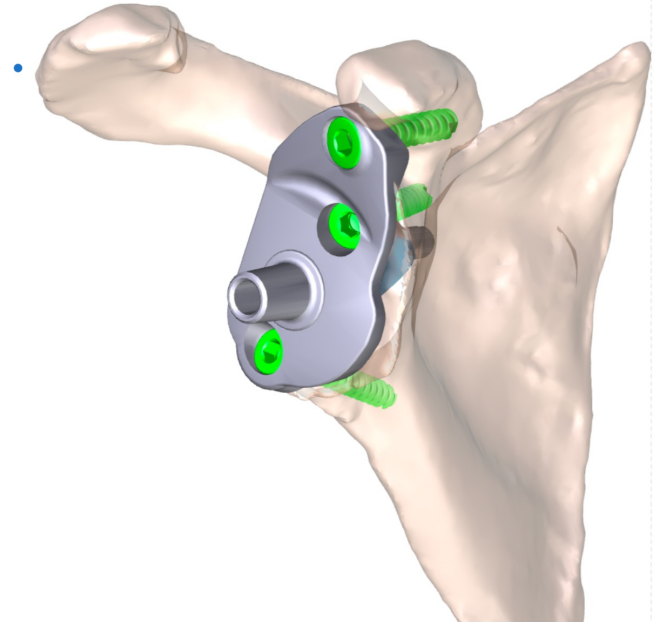
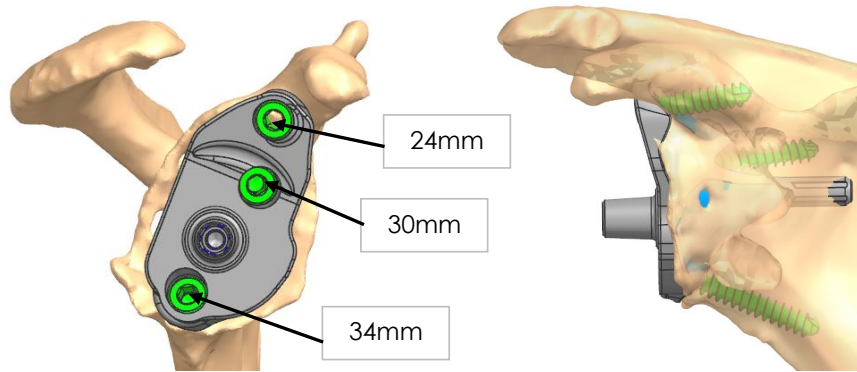
Clinical Case

Fourth surgery (2023): re-implantation RSA



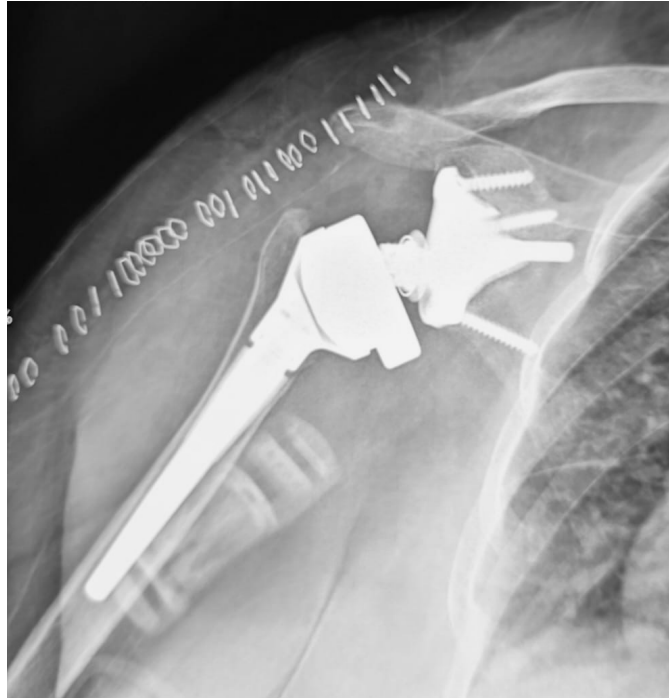
Clinical Case

Fourth surgery (2023): re-implantation RSA



Clinical Case

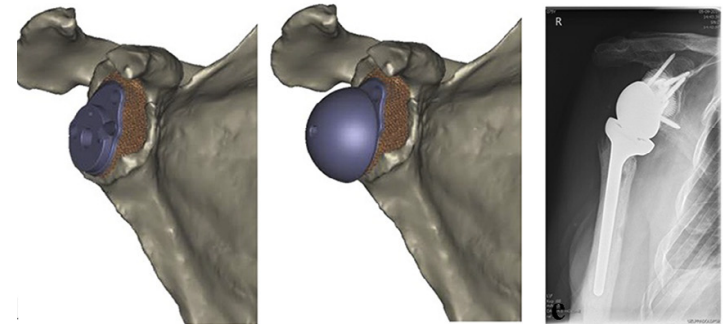
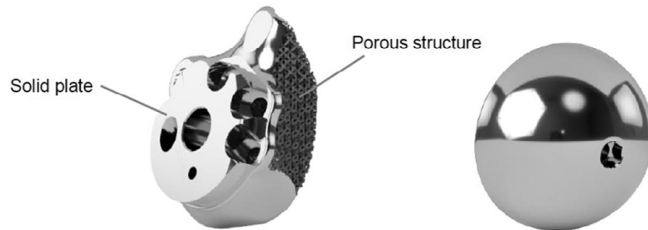
Fourth surgery (2023): re-implantation RSA



Treatment of severe glenoid deficiencies in reverse shoulder arthroplasty: the Glenius Glenoid Reconstruction System experience



Philippe Debeer, MD, PhD^{a,*}, Bart Berghs, MD^b, Nicole Pouliart, MD, PhD^c,
Gert Van den Bogaert, MD^d, Filip Verhaegen, MD^a, Stefaan Nijs, MD, PhD^e



Conclusion: Early results of the Glenius Glenoid Reconstruction System are encouraging. Adequate pain relief, a reasonable functionality, and good patient satisfaction can be obtained in these difficult cases.

REVIEW ARTICLE

Open Access



Custom-made reverse shoulder arthroplasty for severe glenoid bone loss: review of the literature and our preliminary results

G. Porcellini¹, G. M. Micheloni^{1*}, L. Tarallo¹, P. Paladini², G. Merolla² and F. Catani¹

Our preliminary results of 6 patients (3 male, 3 female) treated with a reverse implant and custom-made glenoid implant (ProMade; LimaCorporate, Italy). The mean age of the patients at the time of the surgical procedure was 64 years (minimum 48 and maximum 74 years) and the mean follow-up time was 31.67 months (minimum 25 and maximum 38 months).

The mean pain reduction was 5.67 ± 1.63 according to the pain VAS scale.

The mean increase in the Constant score and the ASES score was 9.83 ± 5.60 and of 30.57 ± 10.77 , respectively.

None of the patients presented glenoid notching or implant mobilization.

Short-term outcomes of reverse shoulder arthroplasty using a custom baseplate for severe glenoid deficiency

Blake M. Bodendorfer, MD^{a,*}, Galvin J. Loughran, MD^b, Austin M. Looney, MD^a, Anthony T. Velott, MD^a, Jason A. Stein, MD^c, David M. Lutton, MD^d, Brent B. Wiesel, MD^a, Anand M. Murthi, MD^c

Methods: Twelve shoulders (11 patients) were included with a mean age of 68 years. At an average follow-up time of 30 months ASES score 45 points. There were statistically significant improvements in median ROM measurements (forward elevation 20, external rotation 40, internal rotation 2 spinal levels). At final follow-up, all implants were radiographically stable without loosening. There were no complications.

Conclusion: This study demonstrates that RSA using the custom VRS glenoid implant is a safe and effective technique addressing complex glenoid deformity or bone loss in both primary and revision settings

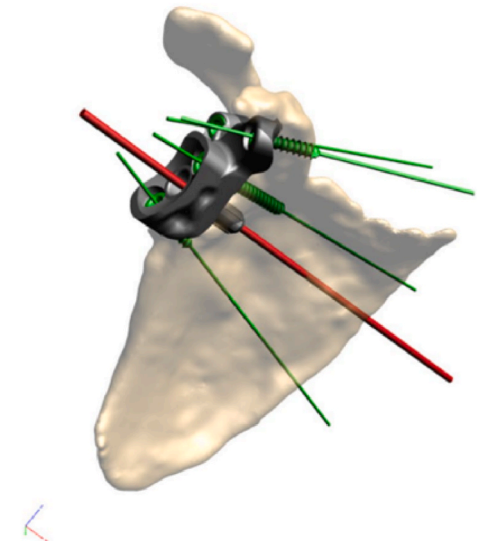


Glenoid vault reconstruction system (VRS; Zimmer-Biomet)

A review of custom implants for glenoid bone deficiency in reverse shoulder arthroplasty

R. Burton^{a,*}, J. Adam^b, P. Holland^a, A. Rangan^a

Literature on outcomes and complications following custom shoulder arthroplasty shows promising results, but at present is limited to relatively small case series with no long-term outcome data.



Conclusions

- Glenoid bone loss represents a great challenge for the orthopedic surgeons, in primary cases and especially in revisions cases.
- Careful study of the patient is essential for the success of the surgery. The reconstruction with 3D CT and the use of specific software provide us with the information necessary for the correct positioning of the implant.
- The development and diffusion of custom made implants will be important for the resolution of complex cases with severe glenoid bone loss. The first clinical and radiographic results are encouraging.
- These implants should be performed by dedicated surgeons with a high degree of experience in shoulder prosthesis, who are able to overcome unavoidable intraoperative difficulties.



Thanks for the attention

robertocastricini@gmail.com