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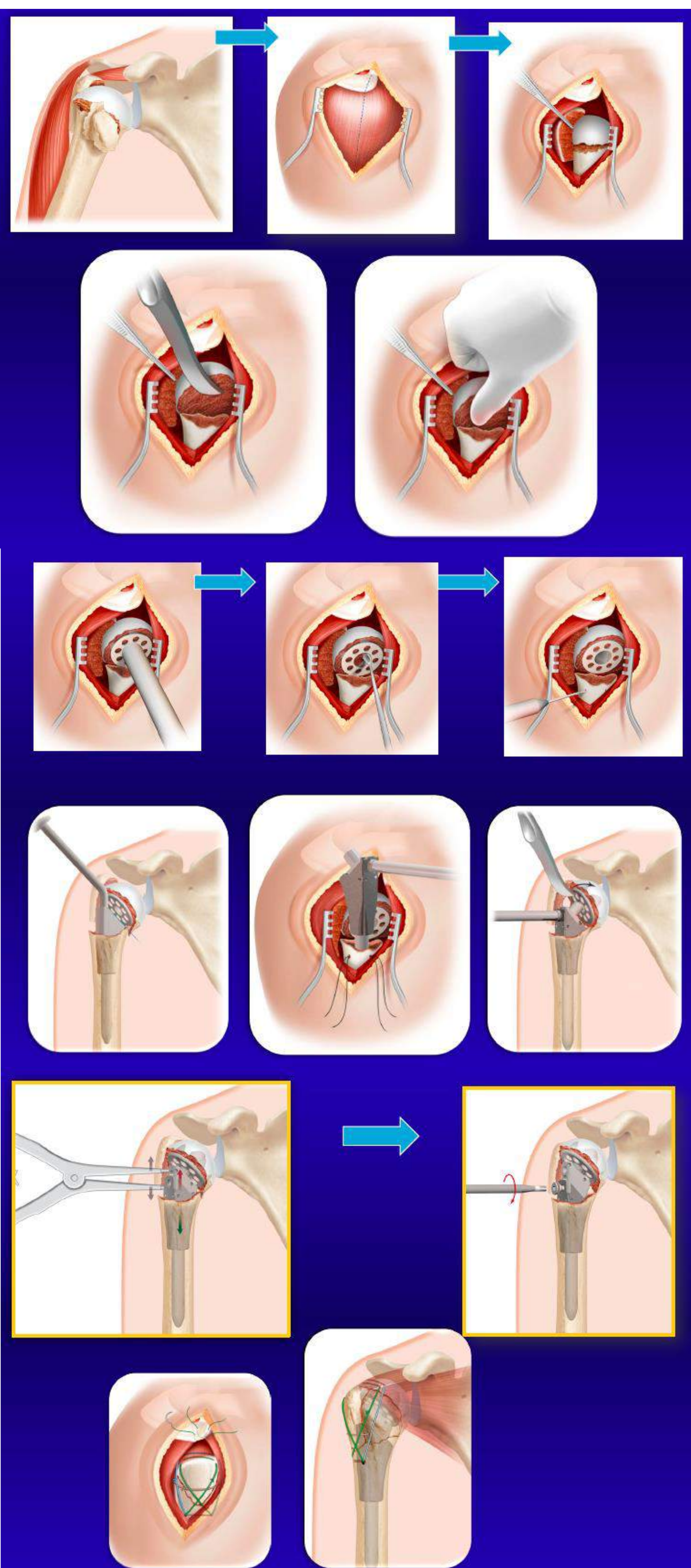
# Nine months follow-up evaluation of new cementless stem Bilboquet for complex proximal humerus fracture fixation.

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## Background

As compared to cemented stem Bilboquet and other fixation systems where the reduction has to be maintained while the fixation is inserted, New Cementless stem Bilboquet enables the reduction of the fracture with the device after its insertion.

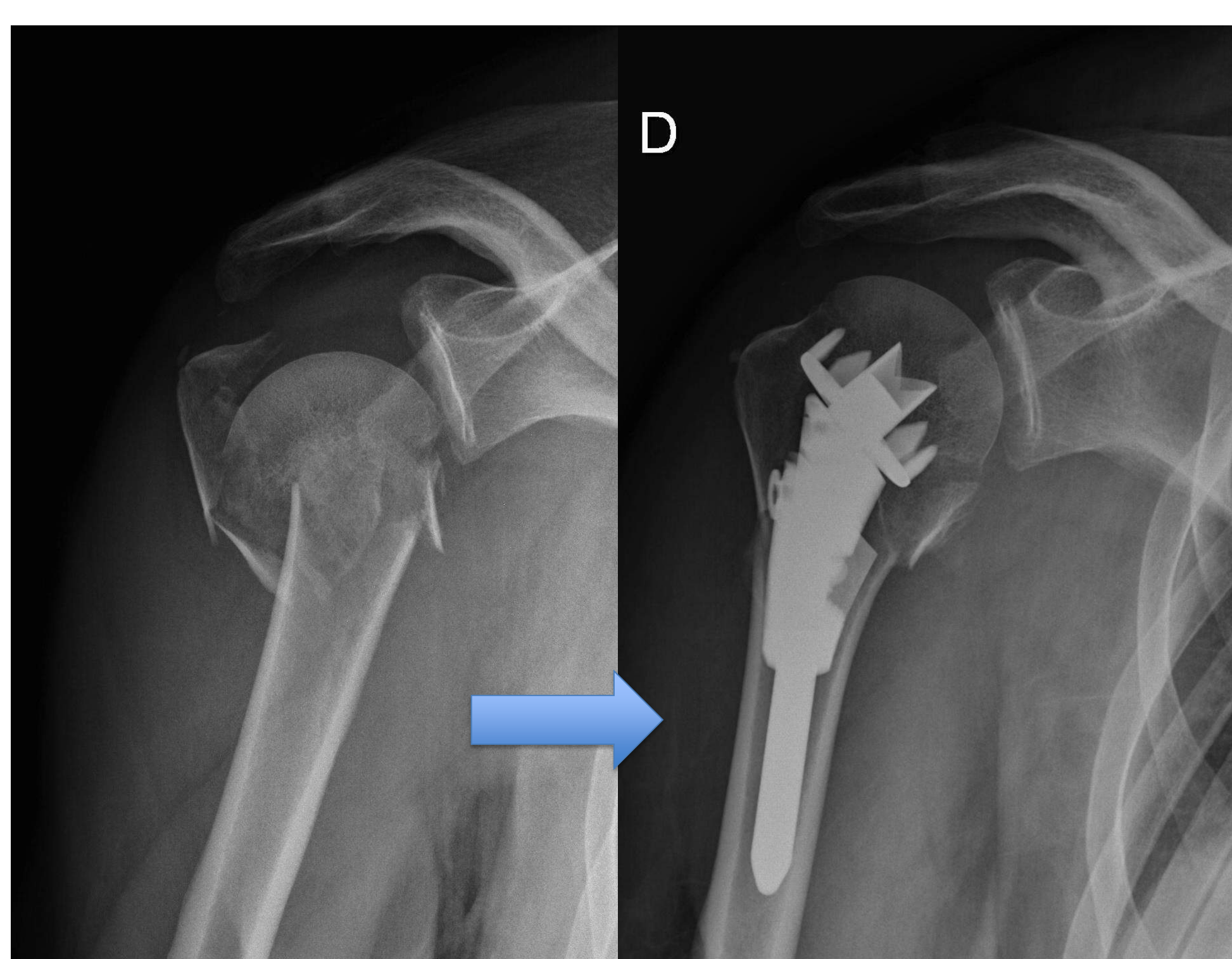


## Aim

The aim of this study was to assess the functional and radiological outcomes of this new technique at 9 months follow-up.

## Method

We conducted a prospective and multicenter study involving 24 patients (50 to 75 YO) with surgical 3 or 4 part fractures of the proximal humerus treated with cementless Bilboquet.



Functional outcome was assessed between 6 and 12 months follow-up (Constant score and shoulder motion in forward flexion and external rotation). Radiological outcome was also assessed with the following criteria: fracture fusion, tuberosity reduction and secondary displacement, staple migration through the head and head necrosis.

## Results

The follow-up was on average 9 months (range 6 to 12).

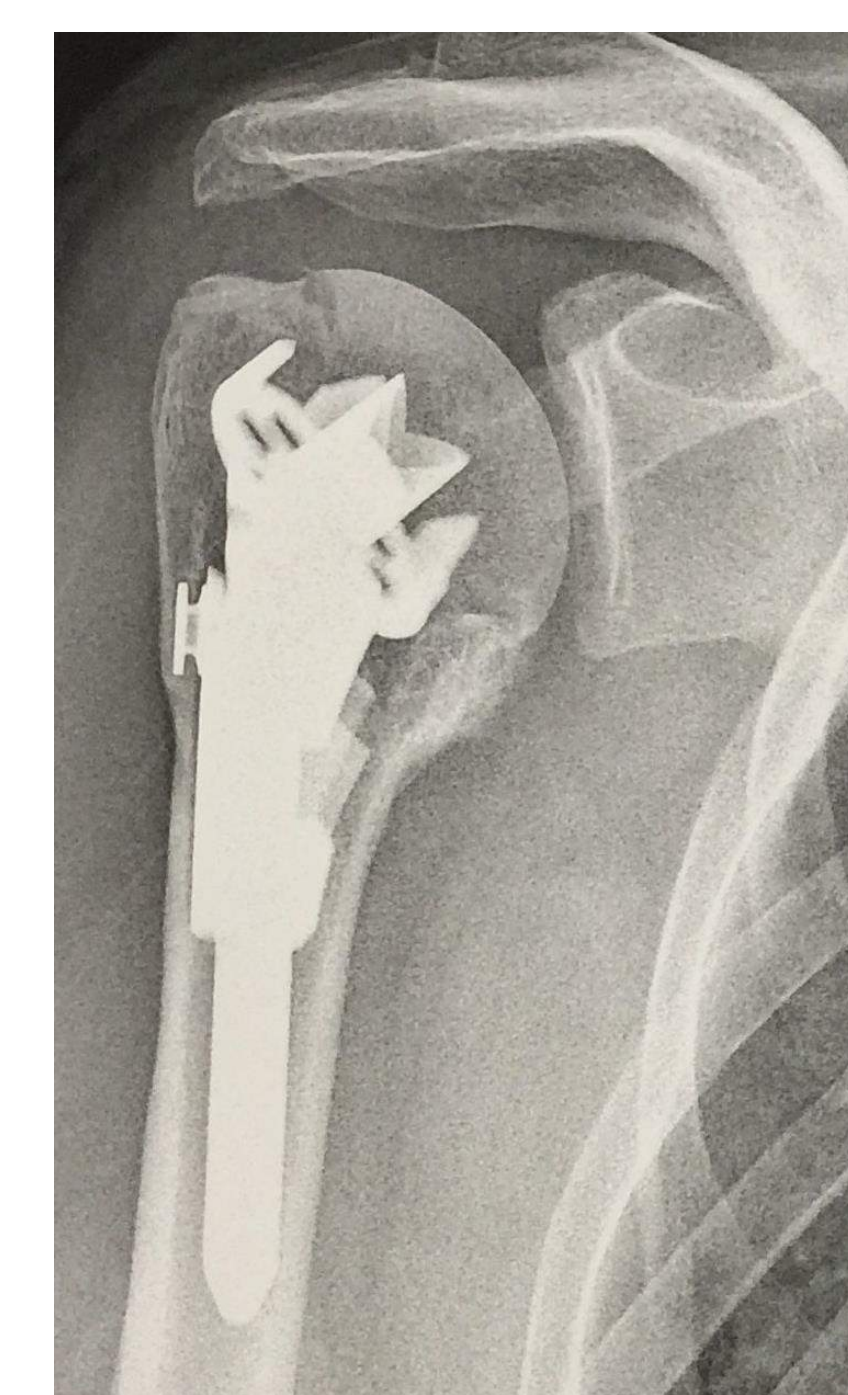
The operating time was on average 65 minutes (45 to 82).

At the latest follow-up examination, weighted Constant score was on average 82 points, forward flexion of the shoulder 116° (70 to 160°) and external rotation 22° (10° to 50°).



All fractures fused with good reduction of the tuberosities, without secondary displacement, and without head impaction or staple cut out.

Radiological signs of head necrosis occurred in 4 patient but without significant impact on shoulder function.



## Discussion

Cementless Bilboquet is a straightforward, easy and durable technique for 3 or 4 part proximal humerus fracture fixation with short term good functional outcomes and reduced radiological complications.