

# **Prosthesis for proximal humerus fracture without cement : Multicenter prospective continue study of a locked stem**

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Cemented stem remain the gold standard for prosthesis in trauma

We report the first serie of locked stem of implant in trauma (hemi and reverse)

93 3 & 4 part fracture have been treated by locked stem, 49 with hemiarthroplasty (mean age 67yo (50-90)) and 44 with reversed (mean age : 76,8 (59-90)).

The length of the stem was 15 cm with a proximal coating of HA automatic locking system (2 screws) and 4 different diameter. Preliminary cadaver study allowed us to validate the system (22 shoulders, no injuries of nerves, locking system efficient).

In the group of hemi Constant score with ponderation reached 72,3 (31,5-120) and QDash 30,2 (4,5-68,1) with a mean FU of 26 months.

In the group of reversed Constant score with ponderation reached 79 (36,4-109,4) and QDash 36,5 (2,27-70,4) with a mean FU of 16 months (12-34).

Specific complications due to locking system reached 3 % but without reoperation.

Other complications were : Capsultis (6%), infection (2%).

In this population of elderly patient, new fall with periprosthetic fracture or infection push the surgeon to remove the stem. At shoulder level removal a cemented stem remain a high demanding procedure with sometimes bad functional results and high level of complications. This serie is the first one of locked stem without significant complications. Locked stem remain a new but logical tool in trauma.