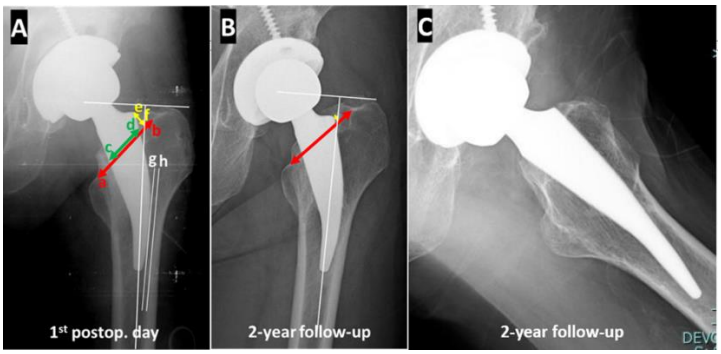
Responses to reviewers: Thank you very much for your valuable comments, I've already corrected my manuscript as your suggestions.

Reviewer #1:

Issue 1: there is no comment on the lateral radiograph. What was the fill in the AP direction? Was there ant or post contact with the stem? could this influence stem subsidence?

Response to issue 1:

In this study, the standard protocol for anteroposterior (AP) digital radiograph of both hips with both legs at 15° internal rotation and lateral cross-table, to control femoral stem rotation. The Metha stem was designed for metaphyseal anchorage within the closed ring of the femoral neck, and the stem alignment will be equal to the native femoral anteversion, and tip of distal stem will contact at postero-lateral cortex, not anterior or posterior cortex, therefore, there was no distal stem contact on the lateral x-ray of the hip.



Issue 2: there is no comment on restoration of offset. Presumably the only way to increase offset with this component is to accentuate the varus and increase the lateral contact, likewise to establish reduced offset means placing the stem in valgus thus reducing lat contact. Comments on this are required.

Response to issue 2:

The Metha stem is available in 5 sizes (0, 1 ,2 ,3 and 4) and 3 caput-column-diaphysis (CCD) angles (120°, 130° and 135°). The operating surgeons can choose for optimal hip offset with good stem alignment during process of trial reduction.

Issue 3: With lateral contact you might expect to see lateral cortical thickening (reaction), was this seen? Comment is required.

Response to issue 3:

Lateral cortical hypertrophy was detected in both non-subsided and subsided groups at two yeas follow-up, 10 cases (5.03%) and 3 cases (4%) respectively. This finding demonstrated that lateral cortical hypertrophy had no influence for stem subsidence. In most subsided cases the subsidence was occurred at the initial phase of about 3-6 months after surgery and then no further subsidence was observed at two years follow-up.

Issue 4: Even with interobserver conformity I would like to see the error included for each measurement. 0.5mm (the mean subsidence) is a small amount to measure on plain radiographs The authors suggest that subsidence is a major problem in uncemented stems and in this study show 12 stems (4%) with subsidence >3mm with none requiring revision at 2 years for loosening, so shouldn't the conclusion be that subsidence is not a major issue even with >3mm and no lateral cortical contact?

Response to issue 4:

I corrected the sentence to "Subsidence is one of the concerning early complications when using the cementless short stem."

Reviewer #2:

Issue #1: Actually, the discussion only takes into account the insertion of short stems without collar and for the reader it would have been judicious to make a bibliographical analysis of the articles comparing short stems with or without collar. This is in my opinion the weak point of this article and I would like this discussion to be considered in the final redaction.

Response to issue 1:

Klein LJ et al. [29] who studied short stem with collar, CFP stem (LINK, Germany) (type IIB according to Khanuja et al [18]), demonstrated that the mean subsidence was 0.3 mm (0.2-0.4) at two years follow-up. This result was comparable with this study and many previous studies using different types of short stem without collar.

Klein LJ, Puretic G, Mohaddes M, Kärrholm J. Similar clinical results and early subsidence between the Collum Femoris Preserving and the Corail stem: a randomized radiostereometric study of 77 hips with 2 years' follow-up. Acta Orthop. 2019 Jun;90(3):202-208. doi: 10.1080/17453674.2019.1577344. Epub 2019 Feb 11. [PMID: 30739560; PMCID: PMC6534260]