

Table S1 : Sensitivity analyses of the primary outcome, using the Last Observation Carried Forward, or the case-observed approach, and on target hip AP views only for both JS loss and the rates of progressors, in the FAS population.

	Placebo	ASU	P value	OR / Diff.	95%CI
	<i>n=179</i>	<i>n=166</i>			
LOCF - Mean Variation of minimal JSW (mm) (sem)	-0.57 (0.05)	-0.53 (0.05)	0.607 ^b	0.04 (0.07)	-0.11 ; 0.18
LOCF - % progressors (progressor = JS loss ≥ 0.5 mm over 3 years)	47.5%	38.6%	0.063 ^a	0.6250	0.412 ; 1.024
	<i>n=127</i>	<i>n=104</i>			
Case-observed - Mean Variation of minimal JSW (mm) (sem)	-0.51 (0.06)	-0.41 (0.06)	0.229 ^b	0.10 (0.09)	-0.07 ; 0.27
Case-observed - % progressors	43.3%	31.1%	0.050 ^a	0.567	0.322 ; 1.000
	<i>n=174</i>	<i>n=164</i>			
AP target hip view only - Mean Variation of minimal JSW (mm) (sem)	-0.69 (0.07)	-0.64 (0.07)	0.621 ^b	0.05 (0.10)	-0.15 ; 0.24
AP target hip view only - % progressors	50.0%	40.2%	0.050 ^a	0.632	0.399 ; 0.999

AP : antero-posterior ; JS : Joint Space ; FAS: Full Analysis Set; P: probability; LOCF: Last Observation Carried Forward; JSW : Joint Space Width ; OR : Odds-Ratio ASU vs placebo ; Diff : Difference between ASU and placebo ; 95%CI : 95% Confidence Interval; ^a Cochran-Mantel-Haenzel test adjusted on strata; ^b ANOVA treatment effect

Table S2 : Results of analyses on the primary outcome: JS loss measured on AP pelvis or target hip radiographs using manual radiochondrometry and rate of progressors, over the 3 year-duration of the trial, in the Per Protocol population (N = 279), according to the MAR-MMRM analysis model.

	Placebo N = 147	ASU N = 132	<i>P value</i>	<i>OR /Diff.</i>	<i>95%CI</i>
Mean Variation of minimal JSW (mm) (sem)	-0.56 (0.06)	-0.46 (0.06)	0.279 ^a	0.09 (0.08)	-0.07 ; 0.26
% progressors (progressor = JS loss ≥ 0.5 mm over 3 years)	45.6%	33.3%	0.032 ^b	0.572	0.344 ; 0.952

JS : Joint Space ; AP : antero-posterior ; MAR-MMRM: Missing at Random - Mixed Model for Repeated Measurements ; JSW : Joint Space Width ; OR : Odds-Ratio ASU vs placebo ; Diff : Difference between ASU and placebo ; 95%CI : 95% Confidence Interval ; ^a ANOVA treatment effect ; ^b Cochran-Mantel-Haenzel test adjusted on strata

Table S3: Results of the analyses on the primary outcome: JS loss measured on AP pelvis or target hip radiographs **using computer-assisted method for JS measurement** and rate of progressors, over the 3 year-duration of the trial, in the FAS population, according to the MAR-MMRM analysis model.

	Placebo N = 179	ASU N = 166	<i>P value</i>	<i>OR / Diff.</i>	<i>95%CI</i>
Mean Variation of minimal JSW (mm) (sem)	-0.69 (0.07)	-0.65 (0.07)	0.700 ^a	0.04 (0.10)	-0.16 ; 0.24
% progressors (progressor = JS loss ≥ 0.5 mm over 3 years)	46.9%	36.7%	0.044 ^b	0.622	0.392 ; 0.987

AP : antero-posterior ; JS : Joint Space ; FAS: Full Analysis Set; P: probability ; LOCF: Last Observation Carried Forward; JSW : Joint Space Width ; OR : Odds-Ratio ASU vs placebo ; Diff. : Difference between ASU and placebo ; 95%CI : 95% Confidence Interval ; ^a ANOVA treatment effect ; ^b Cochran-Mantel-Haenzel test adjusted on strata