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BACKGROUND

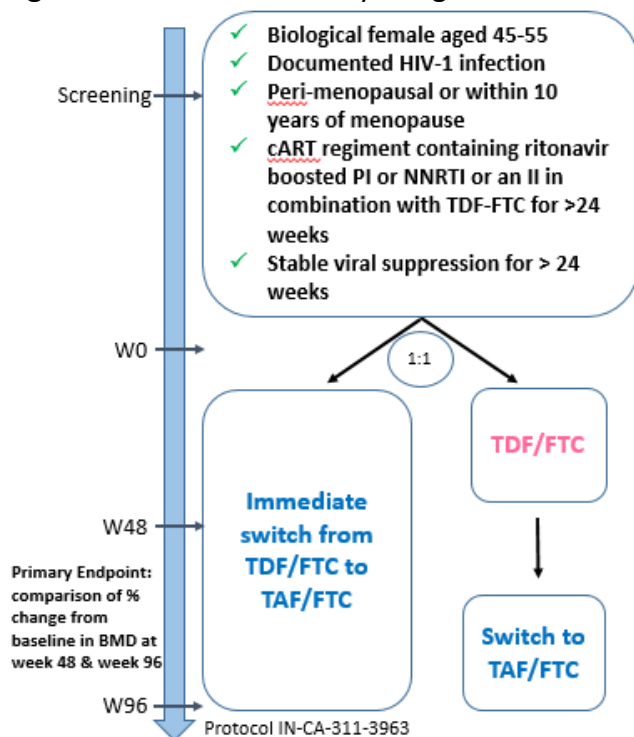
Menopause is a high risk period for the development of osteoporosis, which may be exacerbated by HIV and/or its therapies.

OBJECTIVES

To study the impact of switching from tenofovir disoproxil fumarate (TDF) to tenofovir alafenamide (TAF) on bone mineral density (BMD) in HIV-infected women during the peri-menopausal period.

STUDY DESIGN

Figure 1: Schematic of study design



RESULTS

- 34 women were enrolled between Sept 2017 and April 2019 with follow up to March 2021
- 19 were randomized to the immediate and 15 to the delayed switch
- two participants in the delayed arm were inadvertently switch to TAF at baseline, one in the delayed arm did not switch to TAF at 48 weeks, and one in the immediate arm did not switch and withdrew consent
- the current analysis is as treated
- The study was prematurely closed because of the COVID pandemic
- The baseline characteristics of the women is outlined in Poster 34 of this conference

Table 1- Median (95% CI) changes in Bone Mineral Density (determined by DXA scan)

	Lumbar spine (I)	Lumbar Spine (D)	Total Hip (I)	Total hip (D)	Femoral Neck (I)	Femoral Neck (D)
N	13	10	13	10	13	10
% change week 48 vs 0	1.97 (-1.15, 5.49)	-2.32 (-5.11, -0.19)	0.50 (-1.30, 3.09)	0.30 (-0.9, 2.25)	1.46 (-2.95, 3.18)	0.22 (-2.83, 3.64)
N	18	11	18	11	18	11
% change week 96 vs 0	2.33 (0.0, 4.51)	0.70 (-3.19, 2.47)	1.35 (-1.31, 2.69)	-0.45 (-3.07, 2.80)	0.69 (-1.93, 2.19)	-1.53 (-7.13, 2.27)

I: immediate D: delayed

Figure 2: Lumbar spine bone mineral density

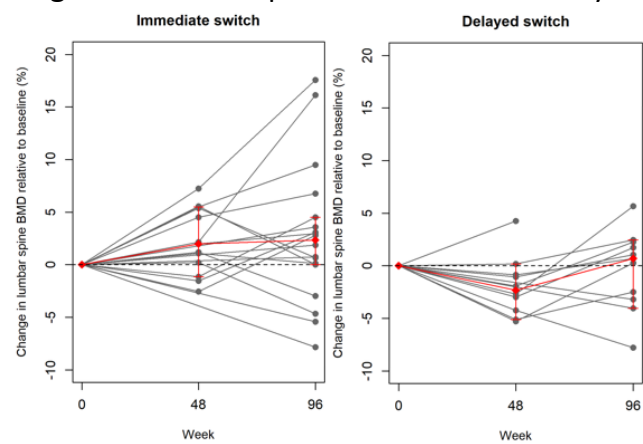


Figure 3: Total hip bone mineral density

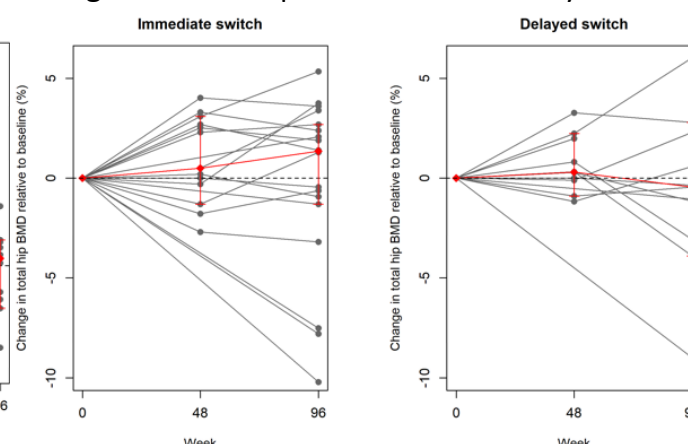
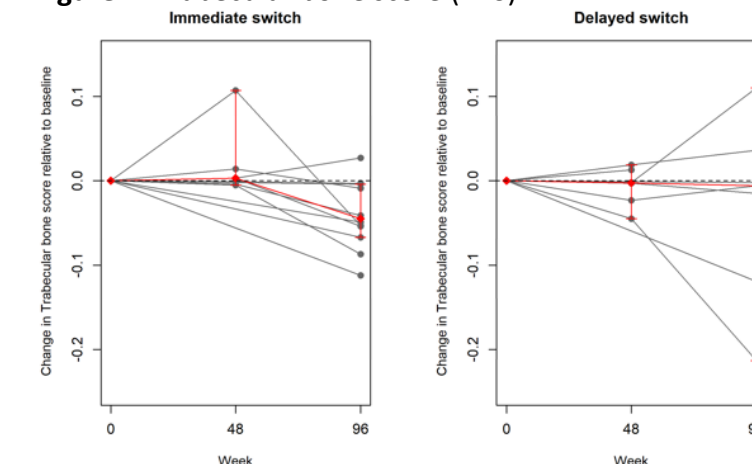


Figure 4: Trabecular bone score (TBS)



Red line corresponded to the sample median and its 95% confidence interval.

CONCLUSIONS

- There was a trend to an increase in BMD at the lumbar spine and femoral neck following a switch from TDF to TAF in peri-menopausal HIV-infected women
- The peri-menopausal period is an important time to reevaluate ARV therapy

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