PE9/60

Darunavir/cobicistat (DRV/c) Effectiveness in a Large Spanish Cohort: a Sex Analysis of the CODAR Study (GeSIDA 9316)

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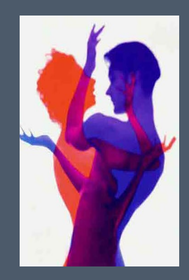


BACKGROUND

- A fixed-dose combination of DRV/c 800/150mg was found to be bioequivalent to darunavir plus cobicistat administered as single agents, and yielded comparable darunavir exposure to darunavir/ritonavir, at steady-state and under fed and fasted conditions in healthy subjects.[1,2]
- A Phase IIIb trial concluded that darunavir and cobicistat was generally well tolerated, and with a safety profile that was consistent with the one of each agent separately. The combination achieved high rates of virologic suppression over 48 weeks. [3]
- In this study few women have been included, and almost none of them were antiretroviral experienced or treated with other than triple based therapies.[3]

OBJECTIVE

We planned this analysis to increase our knowledge about women under DRV/c based regimens

METHODS

- **Multicenter retrospective study including a centralized random sample of HIV-1 patients starting a DRV/c based regimen from June/2014 to March/2017.**
- **Twenty one hospitals all across Spain participate in the study.**
- **Baseline characteristics, and main outcomes were all compared by sex**
- Virological response at 24 and 48 weeks of initiation of DRV/c, defined as HIV RNA <50 copies / mL
- Immune response at 24 and 48 weeks after initiation of DRV/c measured as the change of CD4 cells from DRV/c starting.
- Durability of DRV/c regimens measured as the time from the onset of DRV/c to its discontinuation within 48 weeks (+12 weeks)
- The reasons for change were categorized as Simplification, Toxicity/Intolerance, Interactions, Virological Failure, ART Abandonment by Patient, and Other.
- Adverse events and discontinuation due to toxicity / intolerance. Three outcomes will be evaluated: occurrence of any adverse event, occurrence of adverse event grade 2 to 4, discontinuation of toxicity/intolerance treatment.
- **The study was Approved by ethical Committee and patients signed informed consent.** Clinical Trial.gov No NCT03042390.

RESULTS

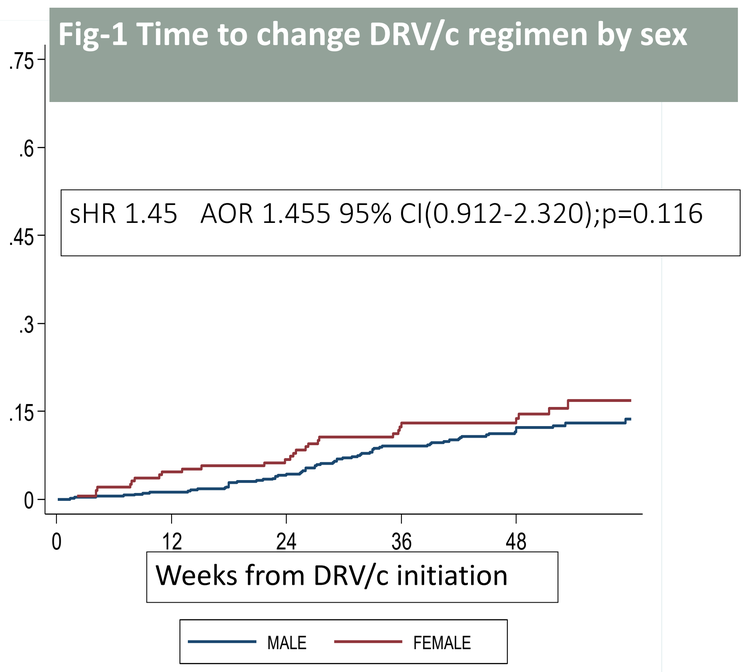
- One hundred ninety three out of 761 participants were women. Similar characteristics were found for both sexes, except that the women had more years of HIV infection (0.001), less exposure to DRV/r in prior regimen, (p=0.02) and a trend towards more DRV/c monotherapy based regimen (p=0.07).Tables 1,2 .

Table-1,2 Baseline characteristics and main Outcomes of Patients starting a DRV/c based regimen by sex

N=761	Women N=193	Men N=568	P
Age (mean IQR)	49 (43-52)	48 (43-55)	0.63
Race (%)			0.21
Caucasian	92	90	
Latin-American	6	6	
African-sub-Saharan	1	4	
Asiatic	1	<1	
Route of Transmission			<0.001
MSM		44	
IDU	28	32	
Heterosexual	61	16	
Other/Unknown	3/7.25	2/5	
Years since HIV Diagnosis (mean IQR)	18 (12- 24)	15 (7-23)	0.001
AIDS %	30	33	0.31
CD4 cell count Nadir (mean IQR)	228 (79-327)	228 (79-329)	0.88
Baseline CD4 cell count (mean IQR)	699 (456-847)	649 (419-847)	0.08
CV basal <50 copies %	82	84	0.25
HCV co infection %	67	64	0.67
HCV DAA %	14	16	0.57
DRV/r in the prior ART regimen (%)	74	82	0.02

N=761	Women N=193	Men N=568	P
Reason to start DRV/cobi %			0.21
Naive	1	1	
Simplification	82	81	
Viral failure	1	4	
Intolerance/Toxicity	8	6	
Other	8	8	
DRV/c Regimen %			0.07
Mono	46	39	
double	25	23	
Triple	27	35	
Quad	2	4	
Viral Response 24s <50 copies/mL N (%)	142 (90)	437 (88)	0.36
Viral Response 48s <50 copies/mL N (%)	101 (88)	340 (89)	0.69
CD4 increase (cell count) 24s (mean IQR)	29	15	0.18
CD4 increase (cell count) 48s (mean IQR)	23	10	0.5
DRV/c change rate up to 48s %	14	12	0.54
Reasons to change DRV/c %			
Simplification	1	2	
Viral failure	<1	3	
Intolerance/Toxicity	7	4	
Drug interactions	3	3	
Other	3	2	

Fig-1 Time to change DRV/c regimen by sex



- The main reason for using a DRV/c-based regimen was simplification without differences by sex. Viral load response, CD4+ lymphocyte count increase at 24 or 48 weeks, main reasons for changing (table 1,2) and time to modify DRV/c regimen (figure-1) did not show differences.
- Women presented a non significant higher rate per 100/pat/year of adverse events leading to DRV/c discontinuation RR 1.860 CI 95% (0.907 to 3.818); p=0.091

CONCLUSIONS

- **In a large multicentre cohort we found that the profile of patients using DRV/c based therapies was similar in women and men.**
- **Mono and double therapy based regimens and simplification were the main baseline profiles**
- **No sex disparities were found in the main study outcomes.**

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