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Do transgender women living with HIV experience different HIV outcomes?

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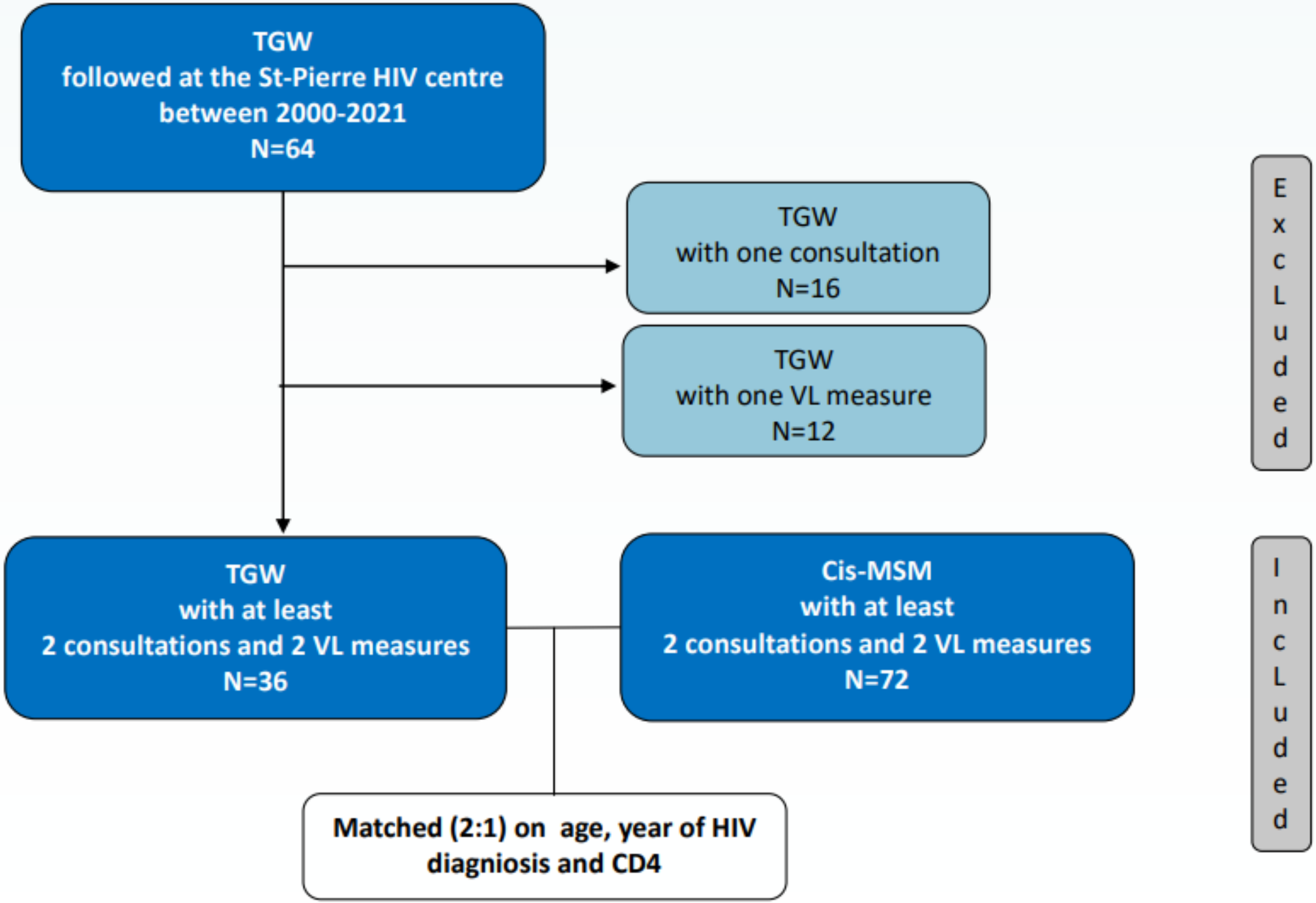
Background

- In many publications, transgender women (TGW) have a high prevalence of HIV (14%-22%) and lower access and retention in care; however, literature regarding HIV outcomes in TGW is scarce.
- **This retrospective monocentric study analyzes whether TGW have different HIV outcomes compared to cis-MSM with HIV.**

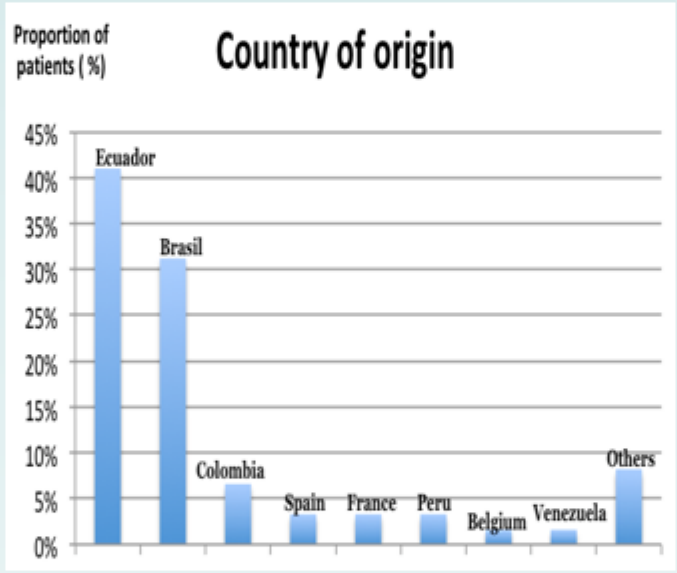
Material and methods

- The Saint-Pierre HIV reference center currently follows 3,500 persons living with HIV.
- Data on demographics, CD4 count level, viral load (VL) and treatment against HIV and comorbidities are **prospectively** collected at each outpatient consultation in the Saint-Pierre HIV Cohort database.
- All patients have signed an informed consent allowing access to these data.
- Ethical committee agreement:CE/22-10-08.


TGW
followed at the St-Pierre HIV centre
between 2000-2021
N=64
TGW
with one consultation
N=16
TGW
with one VL measure
N=12
Excluded
TGW
with at least
2 consultations and 2 VL measures
N=36
Cis-MSM
with at least
2 consultations and 2 VL measures
N=72
Included
Matched (2:1) on age, year of HIV
diagniosis and CD4

Results: the transgender cohort at baseline

TGW cohort (n=64) at baseline



Demography & sociology :

- Origin: Latin America=80%, Western Europe 14%
- Median age: 32,4 years old
- 82,5% without legal status
- 85,7% without health care insurance
- 64,6% are or were sex workers
- 6,3% have been incarcerated

HIV situation at baseline:

- Median time since HIV diagnosis: 8,4 months
- Median CD4 count = 508 cells/µL; 26,5% had <350 CD4 cells/µL
- Previous AIDS stage: 7,8%
- 54,7% are already under cART
- VL <50 cp/ml: 40%

Transition:

- 38% take hormonal treatment without medical supervision (bought online)
- 66% had surgical feminization procedures

Results: comparison of 36 TGW with 72 cis-MSM at baseline

Comparison between TGW (n=36) and cis-MSM (n=72) at baseline

Demography & sociology :

Most TGW are originating from South America (88,9%), don't have a legal status in Belgium (83,7%)*, nor an health care insurance (83%)* nor a personal address (58,3%)*.

One third of them smokes, 28% drinks alcohol daily, and 36% takes drugs, mainly cannabis and cocaine; 75% had to practice sex work*; 27,8% were victim of physical abuse* and 11,2% of sexual abuse (*p<0,05).

The cis-MSM are from Western Europe (62,5%), live in Belgium legally (79%) with a health care insurance (69%) and a personal address (81%). Approximately one third of them went to university, smokes (32%) and 24% drink daily; 43,1% of them use drugs, including mostly Chemsex, cannabis, amphetamines and cocaine; 9,7% of them were physically and 2,8% sexually abused.

=> TGW were significantly more at risk to have illegal status, lack of health insurance or lack of personal address, to be sex worker or to have experienced physical abuse.

The median age at HIV diagnosis is 30,4 years-old compared to 34,8 years-old in cis-MSM and median duration of known infection is 8,4 months (interquartile range (IQR) of 60 months) for TGW group and 1,2 months (IQR 13,2 months) for cis-MSM. **So duration of known infection at first consultation was longer in TGW than for cis-MSM,** although not significant (p=ns). Accordingly, 50% of the TGW were already under cART against 34,7% for cis-MSM.

Results: comparing 36 TGW with 72 cis-MSM at end of FU

At end of FU	36 TGW	72 cis-MSM
Duration of FU (months)	58,4	87,4
AIDS stage	25%	5.5%, *p*= .03
under cART	> 95%	> 95%
Proportion of time with VL<50 cp/ml during FU	84%	94%

- **9 (25%)** TGW were under either ritonavir, cobicistat, nevirapine or efavirenz that could have **drug-drug interaction** with feminizing hormonal treatment.

- **Cis-MSM** show a trend for **higher rate of** new infection with hepatitis C, syphilis and chlamydia and more cardiovascular comorbidities.

Discussion and conclusion

- Limitations are retrospective design, small size sample with lack of statistical power.
- The TGW in our cohort experience a **different HIV outcome**, with **high rate of lost to FU, more AIDS stage and a shorter time with undetectable VL** possibly due to combined social and psychological vulnerabilities. Because most of TGW in our cohort speak only Spanish, medical and psychological cares might not be optimal. Frequent migrations for work or because of illegal status could also account for unstable lifestyle.
- There was **a trend for lower rates of sexually transmitted infections in TGW**. This could be explained by sexual relations with heterosexual partners (in which these infections are less prevalent than in cis-MSM) and a lower use of ChemSex.
- There was **a trend for lower rates of cardiovascular comorbidities in TGW** compared to cis-MSM. Further studies could look for possible explanations such as differences in ethnicity, diet, BMI, or protection by feminization hormones.
- Clinicians should be aware of the **potential interactions between cART and the hormonal treatment taken by TGW.**