The Calgary and Paris (CAP) Adult Tic Registry: Project description and initial analyses of sex differences in tic phenomenology

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BACKGROUND

- Tic disorders are less common in adults than children, and sex distribution may be more even,1,2
- There is comparatively less research on Tourette syndrome (TS) in adults.

AIMS

1. To assess tic frequency and tic phenomenology in adults with TS.
2. To investigate how sex influences tic phenomenology and comorbidity profile in adults.
3. To present the objectives, design & methodology of the CAP Adult Tic Registry.

METHODS

Inclusion of adults with tic disorders from Calgary, Canada and Paris, France into the CAP Adult Tic Registry.

RESULTS

N=164 adults with tic disorders

Sex

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<th>Women (n=57, 35%)</th>
<th>Men (n=107, 65%)</th>
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- 100% cisgender

Nationality

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<th>Canadian: 87/164 (53%)</th>
<th>French: 77/164 (47%)</th>
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- There was no difference between sexes.

Age at tic onset

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<th>Canadian: 9.9 (95%CI=8.2-11.5)</th>
<th>French: 8.0 (95%CI=7.0-9.0)</th>
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- There was no difference between sexes.

Diagnosis

- ADHD: 49/164 (30%)
- OCD: 54/164 (21%)
- Depression: 59/164 (36%)
- Anxiety disorder: 83/164 (51%)

SEX DIFFERENCES

- Canadian women had slightly more simple hand tics than men (OR=3.0, 95%CI=1.2-7.6, p=0.03)
- Canadian women had a greater complexity of motor tics (p=0.048), a greater motor tic score (p=0.03), and a greater tic-related impairment (p=0.003) than men. There was no difference in the French subgroup.
- Canadian women had more anxiety disorders than men (OR=3.2, 95%CI=1.3-8.0, p=0.01). French women had more OCD than men (OR=4.8, 95%CI=1.3-18.0, p=0.02). There was no sex difference in ADHD and depression.

TAKE-HOME MESSAGES

- Simple head/face tics and throat clearing are the most common tics in adults. The distribution of simple motor tics and phonic tics appears to be similar in adults to existing data in children, except for a few complex tics (e.g. tic-related compulsions 2% in adults vs 19% in children4).
- A more even sex ratio in the adult population than in the pediatric population suggests either that TS tends to persist longer in females, or that women consult more often than males because of greater tic-related impairment5,6 (linked to higher tic severity,6 or higher levels of distress/depression/anxiety?).
- In the future, the CAP Registry will continue exploring the questions of sex differences in tic presentation and outcome, and:
  - Characterize the relationship between tic severity & tic-related impairment in women vs men
  - Standardize and evaluate screening methods for ADHD, OCD, depression and anxiety in adults.
  - Create a source of potential participants for research studies of adults with tic disorders.

REFERENCES