

Characteristics of problematic users of Trihexyphenidyl (THP) in a French overseas territory

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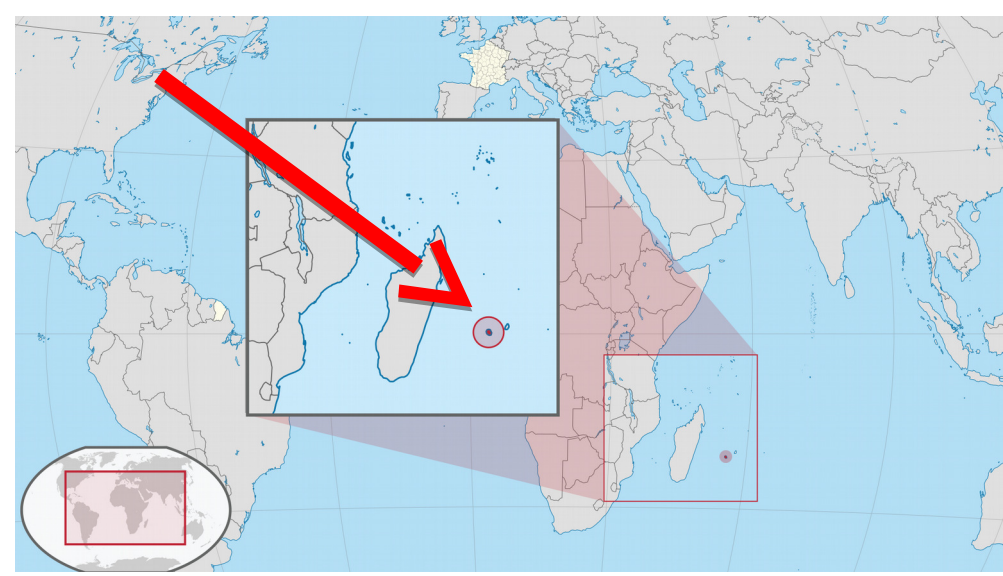


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Background: Reunion Island

- French overseas territory
- Indian ocean, 834k inhabitants
- Insularity, young population
- Economic & social insecurity
- Use of alcohol & drugs different from mainland France



Background: Trihexyphenidyl (THP, Artane®)

Therapeutic use: anti-Parkinson agent (synthesis anticholinergic)

- Symptomatic treatment of Parkinson's disease
- Extrapyramidal side effects occurring during antipsychotic treatment

Diversion: Reinforcing effects (euphoria, stimulation, social disinhibition)

Restricted to specific geographical areas

Reunion island concentrates almost all THP diversion in France

Objective

To describe patterns of THP use among off-label THP users

Methods

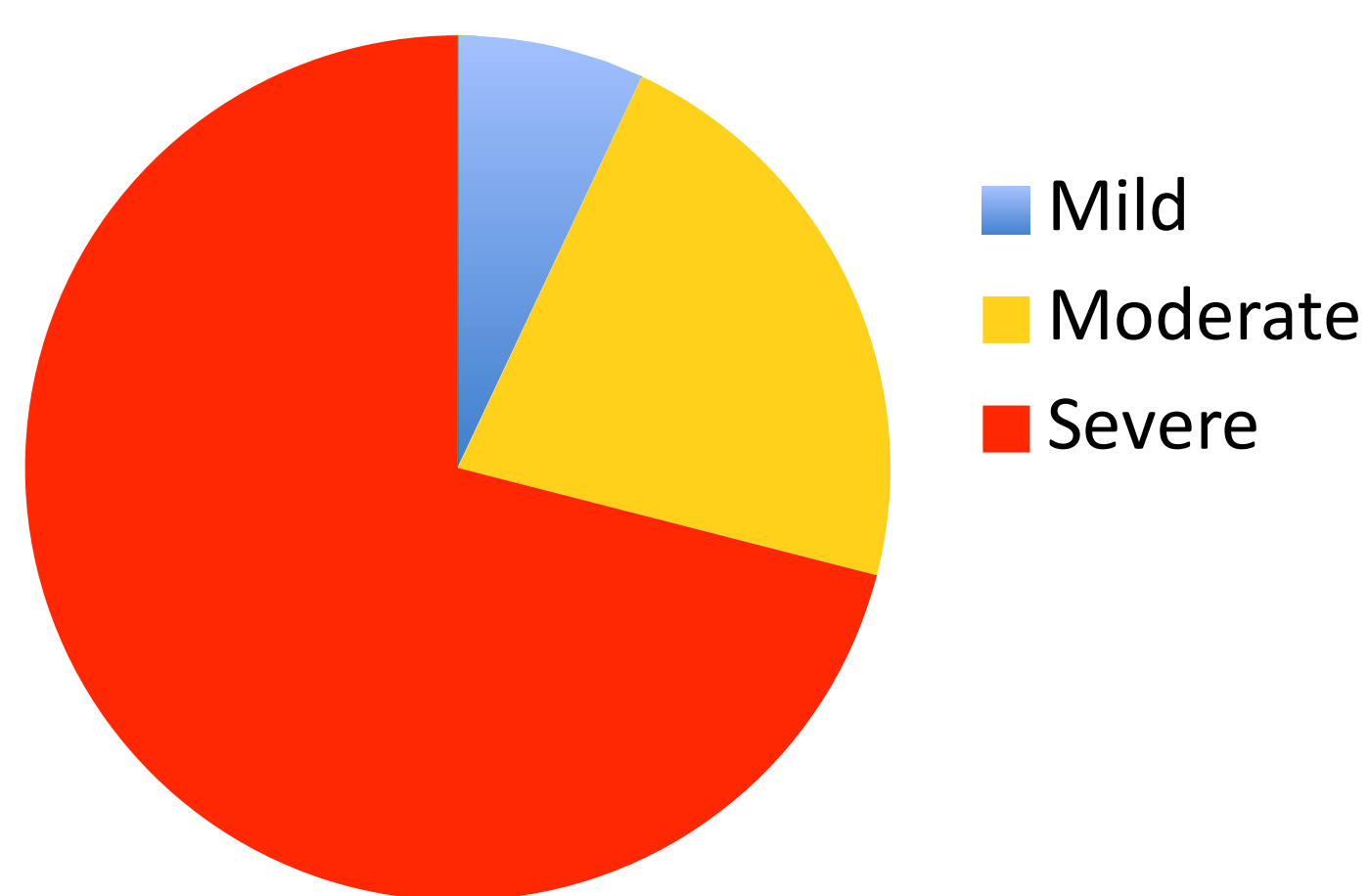
- Cross-sectional survey carried out in Reunion Island (France) in 2017
- Voluntary subjects with off-label use of THP were recruited in outpatient addiction treatment clinic, office-based family medicine and psychiatric hospital
- Interview with the modified-Addiction Severity Index (mASI)¹, DSM-5 criteria, a visual analog scale for craving intensity and a questionnaire exploring motivation for use
- Instruments were adapted to evaluate THP use disorder
- Analyses: description of variables ; JMP® software

Results

- **57 subjects** included: 88% men, mean age 38 y.o. (SD=9)
- Lifetime regular use of THP averaged **15.4 years** (SD=8.4) *p.o.* only
- **86.5% (n=45; 52 responses)** of participants were diagnosed with lifetime THP use disorder (current: 84.6%)

- THP use disorder diagnosis were mostly **severe (71.1%)**

THP use disorder severity



- **73.6%** experienced **craving for THP** in the past 30 days:
 - 23.2 days/30 (SD=11)
 - Average Intensity: 4.8/10 (SD=2.3)
 - Max. Intensity: 7.2/10 (SD=2.1)

- **Need for specific treatment** (ASI interviewer severity ratings)

| ASI domain | % of subjects with ISR≥4 |
|--------------------|--------------------------|
| Medical status | 18% |
| Employment | 46% |
| Alcohol | 14% |
| Drugs | 81% |
| Tobacco | 68% |
| Gambling/Gaming | 4% |
| Food | 4% |
| Legal status | 12% |
| Family/Social | 25% |
| Psychiatric status | 32% |

- **Poly-addiction with THP**

| SUD | % subjects | SUD | % subjects |
|----------------|------------|-----------------|------------|
| THP + Tobacco | 82.2% | THP + sedatives | 28.9% |
| THP + Cannabis | 73.3% | THP + opiates | 15.6% |
| THP + Alcohol | 57.8% | THP + Cocaine | 8.9% |

- **Reported motivation for THP use**

| | % respondents |
|---------------------|---------------|
| Hedonic only | 10.4% |
| Self Treatment only | 33.3% |
| Combination | 56.3% |

- **Psychiatric comorbidities associated with current THP use disorder**

| Number of psychiatric comorbidities | % among subjects with THP use disorder |
|-------------------------------------|--|
| 1 | 25% |
| 2 | 15.9% |
| 3 | 11.4% |
| 4+ | 4.5% |

- Anxiety disorder: 34.1%
- Mood disorder: 11.4%
- Psychotic disorders: 11.1%
- Antisocial personality: 26.7%
- ADHD child: 31.1%
- ADHD adult: 15.6%

Discussion

- **Majority of off-label THP users in treatment settings met criteria for THP use disorder and reported craving**
- **Comorbidities and need for treatment were high**
- **Evaluation of use disorder should be systematically explore for better care of off-label users of THP**

References: Usefulness and validity of the modified Addiction Severity Index: a focus on alcohol, drugs, tobacco and gambling. Denis C. et al 2016 Subst. Abuse 37, 168-175

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