Methylphenidate: gender trends in adult and pediatric populations over a 7 years’ period

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Summary

Objective
Methylphenidate (MPH) is a prescription-stimulant medication which is authorized in France for two indications: attention-deficit hyperactivity disorder in children (aged ≥6 years) and narcolepsy in cases where modafinil is ineffective (for children and adults). MPH use has increased worldwide in the past 2 decades in children and adults. Different pharmacoepidemiological Europeans studies have described MPH patterns of use. To our knowledge, few pharmacoepidemiological studies have described MPH patterns of use in France.

Methods
In this context, we have performed a study on regional reimbursement database (PACA-Corse area, covering approximately 4 million inhabitants). The first part of the study analyzed the evolution of MPH users characteristic’s yearly (grouped by age and gender) over a 7 year period (2005-2011). In order to better characterize patterns of MPH use in adults a specific analyze has been performed in the second part on MPH adults users in 2011 with a gender descriptive approach.

Results
During the 7-year period, MPH dispensing grew from 0.28 to 0.68 patient per 1000. The proportion of adult patients rose from 14.8 to 25.7% (p<0.0001), with patients mainly aged 35-49 years old. Gender differences in MPH users were noted between adults and children: the proportion of girls was less important in children than in adult (in 2011, 20.7% of girls among children vs 44.9% among adults). Moreover, the proportion of girls among children increased between 2005 to 2011 ((15.1% of girls in 2005 versus 20.7% in 2011). Among adults, women were prescribed more antidepressants (41.5% versus 28.2%, p=0.003) and less opiate maintenance treatments (22.4% versus 31.9%, p=0.03) than men. Finally, 11% of men and 16.4% of women were over 50 years old.

Conclusion
MPH prescription greatly increased over 7 years, especially in adults. Moreover, in this population, patterns of MPH use differed with gender specificities. Such findings may increase clinical attention on monitoring MPH use in adults.