INTRODUCTION

Bipolar disorder (BD) is a chronic mood disorder that features one or more mania/hypomania episodes, which may be accompanied by at least one depressive episode. BD type I (BD-I) is a subtype of the disease characterized by the presence of a manic episode. The number of prevalent cases of BD increases in the general population, which is evident in changes in diagnostic reporting practices. It is of utmost importance to map its epidemiologic aspects to better allocate resources.

OBJECTIVES

To perform a systematic literature review (SR) of studies on BD in the United States, focusing on BD-I, assessing all relevant epidemiologic studies, including studies on BD-I prevalence, annual incidence, demographic and comorbidity traits, mortality rates and trends, associated comorbid conditions, stages, natural course and neuroprogression.

METHODS

The first step was to formulate several questions addressing the main epidemiologic questions about BD-I:

1. Incidence and prevalence of BD-I in the US
2. What are the annual incidence rates for BD-I in the US?
3. What are the annual prevalence rates for BD-I and BD-II in the US?
4. What are the mortality rates associated with BD-I?
5. What are the common comorbidities associated with BD-I?
6. What trends are there in the number of euthymic days?
7. What is the natural progression of BD-I?

Then, search strategies were developed for each set of questions, as shown in Figure 1. PRISMA Flow diagram is shown in Figure 2.

RESULTS

There were 11 SR, 37 and 5 primary studies of interest retrieved.

BD-I Prevalence Trends

While all multinational and local studies show an increase in the prevalence rates of BD-I among adults, adolescents and children in the same period to a decade,

Most studies stress that differences in diagnostic criteria and the increase in awareness and diagnosis may have played an important role.

Results from a meta-analysis revealed that the diagnostic tool had a significant impact on the prevalence rates of BD-I and BD-II over time, with significant differences in prevalence across gender, socioeconomic status and bipolar subtype.

The prevalence of BD-I according to the US National Institute of Mental Health (NIMH) is 1% (lifetime) and 0.6% (12-month).

The mean age of onset is around 20 years, with more than 70% of cases already diagnosed by the age of 25 years.

COMORBIDITY & MORTALITY

Patients living with BD-I have high rates of comorbid disorders, such as:

- Major mood disorder (23.7% to 48.3%)
- Drug use disorder (19.5% to 33.0%)

The risk of comorbidity is higher than that of the general population.

Prevalence of BD-I among US adults with any anxiety disorder (51%-64%)

BD-I prevalence (lifetime) ranges from 0.7% (male) and 1.1% (female) to 1.7% (male) and 2.0% (female), respectively.

Other mental disorders were also more common in patients living with BD-II and have a negative impact on the number of euthymic days.

Mortality (due to natural or unnatural causes) is higher in patients with BD than in the general population, with an estimated 28% to 73% higher mortality risk in patients with BD compared to those without BD.

STAGING AND NATURAL PROGRESSION

Staging model reveals the following phases in BD-I and BD-II: phase (before diagnosis), prodromal phase (child, non-specific symptoms, most patients undiagnosed), initial phase (first episode), relapsing phase (progression) and end stage disease (refractory).

BD-I patients spend about half of their life, especially due to depressive symptoms.

The most relevant studies on the topic are shown on Table 3.

CONCLUSION

BD-I is a chronic and disabling disorder with onset in early adulthood. Knowledge of epidemiologic features may help increase awareness and early diagnostic pathways, although there is a gap in our understanding of prevalence and incidence rates over time, with no studies regarding BD-I evidence found. All physicians must be alert to the high comorbidity rates associated with this disorder.

Table 1. Relevant studies on BD-I prevalence / incidence in US population

<table>
<thead>
<tr>
<th>Study</th>
<th>Year</th>
<th>Methodology</th>
<th>Study Design</th>
<th>Sample Size</th>
<th>BD-I Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judd LL, Akiskal HS</td>
<td>2003</td>
<td>Retrospective cohort study</td>
<td>US National Comorbidity Survey</td>
<td>9,282 respondents</td>
<td>1.06% (CI95% 0.81 - 1.31)</td>
</tr>
<tr>
<td>Seitz D, et al</td>
<td>2010</td>
<td>Systematic review</td>
<td>Systematic review</td>
<td>12 studies</td>
<td>14.6% (confidence interval: 5.5%-26.8%)</td>
</tr>
</tbody>
</table>

Table 2. Relevant studies addressing staging and natural progression issues related to bipolar disorder including US population

<table>
<thead>
<tr>
<th>Study</th>
<th>Year</th>
<th>Methodology</th>
<th>Study Design</th>
<th>Sample Size</th>
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