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ARCHIVES OF Depression and Anxiety OPEN ACCESS JOURNAL

ISSN: 2455-5460 DOI: https://dx.doi.org/10.17352/ada

Received: 27 February, 2023
Accepted: 16 March, 2023
Published: 17 March, 2023

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Keywords: Bipolar disorder; Aging; Cognitive; Impairment; Dementia

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Mini Review

Bipolar disorder and aging

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Abstract

Bipolar disorder is a chronic illness, defined by a succession of depressive and/or manic periods separated by free intervals. Its evolution with aging is marked by a high suicide mortality rate. Bipolar disorders raise the question of their evolution when the age of the subject, in particular with regard to their frequency, their clinical characteristics, their prognosis and their management. The evolution of bipolar disorder with aging poses several difficulties in clinical practice due to its underestimated frequency and its misleading presentation and in particular by the presence of sometimes significant cognitive alterations leading sometimes to dementia.

Introduction

Although much research has been done in the field of depression in the elderly [1], the literature pays little attention to bipolar disorders related to old age and it seems difficult to describe them as they develop over the course of aging and to produce an evolutionary model specific. However, it is now accepted that bipolar illness can manifest throughout life following very different evolutionary profiles according to the age at the onset of the disorders and the polarity of the episodes anterior.

The study of prognosis of bipolar disorder has been the subject of numerous short-term studies (cross-section of the cohort, mainly) and long-term studies. Short-term studies tend to report prognosis worse than long-term studies, probably because the duration of major mood episodes is extremely variable and these studies to short term took into account patients who were not yet in remission. Thus, the analysis of the literature clearly indicates that study duration is an artifact predictor of a better prognosis.

The most recent studies report that bipolar disorder affects 0.5% to 1% of people over the age of 60 and represents about 4% to 17% of psychiatric hospitalizations of the elderly subject [2]. Bipolar disorders in the elderly force us to wonder about their often marked association with cognitive impairment both during episodes acute and during the remission phases of the disease bipolar. Bipolar disease is considered by certain authors as a pathology at risk of evolution towards cognitive disorders that can be considered as predementia states, even real dementia syndromes [3].

What clinical particularities?

With advancing age, the clinical picture of the disorder bipolar disorder in the elderly becomes atypical: indeed, certain symptoms appear, which are not observed in young patients. However, these semiological specificities of aging-health bipolarity, often derived from empirical data, do not are not fully supported by the literature [4].

Studies suggest that the clinical picture of bipolar disease gets better with aging troubles. Manic attacks would be less intense. Symptoms more often include irritability, sometimes associated with a delusion of persecution, behavioral disorders such as agitation, motor instability and ambulation and cognitive disorders which are also more frequently associated

Citation: Bourin M (2023) Bipolar disorder and aging. Arch Depress Anxiety 9(1): 001-004. DOI: https://dx.doi.org/10.17352/2455-5460.000072

with confusion and agitation. On the other, there is a risk of conversion to bipolar disorder in patients with late-onset major depression [5].

The existence of depressive symptoms would be frequent [6] and we would observe more mixed states like dysphoric mania and more recurrences in the case of late-onset of bipolar disease. Currently, it is accepted that bipolar disease continues to re-offend over time – the rate of recurrence is between 32 and 51%, depending on the studies – and that it is the seniority of the disease bipolar and, therefore, the large number of episodes anterior, which is the prognostic variable of the number future recurrences and difficulties adapting upcoming psychosocial [7].

Prevalence

According to studies, the prevalence of the bipolar disorder in geriatric psychiatry services ranges from 4% to 17%. Epidemiological studies [8] report that type 1 and type 2 bipolar disorders affect 0.5% to 1% of the elderly, while this rate is 4% in the general population.

An Australian study [9] indicates that the prevalence of people aged over 65 with bipolar disease increased from 2% in 1980 to 10% in 1998 with a higher sex ratio for women (3 women for 2 men).

The survey called ESPRIT [10] (risk, incidence and treating psychological health survey) was carried out among 1,873 people aged over 65 and found a point prevalence of 0.4%.

This lower result than those observed in other studies can be explained by several hypotheses, in particular the cohort effect due to premature excess mortality in bipolar patients, an abrasion of symptoms with age, and the diagnosis is more difficult to make. under these conditions with a relative inadequacy with the diagnostic criteria established for the young subject. Thus, bipolar disease in the elderly has a prevalence equal to approximately one-third of the younger bipolar population [11].

What evolutionary profile?

The influence of normal aging on bipolar disorder is still misassigned. Studies on bipolar disorders in the elderly have made it possible to highlight a great variability of the course evolution according to the age of onset and the polarity of successive episodes [12]. Cognitive impairment is a feature of major bipolar disorder and they are commonly observed, whether during the active phases of the disease or during periods of remission. During euthymic periods are mainly executive functions, learning and memory verbally, but also, to a lesser degree, visual memory, sustained attention and speed of information processing, are affected. Cognitive disorders are therefore encountered in bipolar disorder regardless of age, but the profile neurocognitive of bipolar disorders in the elderly seems different from that of young subjects [13]. We find, in fact, the same damage at the level of executive functions, learning and verbal memory but, with advancing age, much more marked damage to their formation processing [14]. Moreover, it is difficult to show factors influencing the onset of cognitive dysfunction in bipolar disease, even if we know that psychotic symptoms or comorbidities such as substance abuse are likely to influence the cognitive profile of patients, including verbal memory and executive functions. Currently, the links between cognitive abnormalities and the severity of bipolar disorder or its chronicity are difficult to elucidate [15]. However, a number of arguments plead in favor of the fact that the severity of the attacks and their duration are likely to affect attentional capacities and verbal memory performance.

Is bipolar disorder a dementia risk factor?

The evolution of bipolar disorder towards an array of insane seems debatable. Recent studies suggest that bipolar disorder in itself would be a risk factor for cognitive impairment due to neurodegenerative damage to the cortical and limbic regions [16]. Some authors [17] suggest that the damaged cognition of elderly bipolar patients could be different from those encountered in the subjects younger and would constitute a veritable painting of dementia specific to bipolar disease. Their clinical approach would be similar to certain frontotemporal degenerations, comprising a cognitive impairment that would be focused on attention, executive functions, verbal memory and language, as well as frequent behavioral, essentially frontal. But it walks away distinguished in particular by a lower frequency of physical neglect and emotional indifference [18].

In addition, the risk of dementia appears to increase with the number of decompensation episodes mood and the rate of dementia would increase by 6% at each hospitalization [19]. It was observed that the rate of evolution dementia in bipolar subjects is 10 times higher than the 1 to 2% incidence rate of dementia expected given the age of the patients [20]. The aging of the bipolar disease and its evolution towards a degenerative pathology or its involution from the cognitive point of view can make evoke several origins: the long-term effect of the treatments, the longitudinal history of the disorder (age of occurrence, number and accordingly, neurotoxicity depressive episodes and deleterious cognitive effects of duration of hospitalization), addictive comorbidities or the existence of a neuroanatomical substrate [21].

Thanks to the development of functional and structural neuroimaging, bipolar disease can be considered a neurodevelopmental disease. Highlighting anomalies in cerebral effects such as reduction in density or the size of certain parts of the brain seems to explain both the genesis of bipolar disorder to an early stage and the onset of cognitive and dementias at a later stage accompanied by neurodegenerative disorders [22].

In addition, the hyperactivation of the HPA axis by repeated episodes of thymic decompensation plays an important role in brain neuroplasticity [23]. Therefore, it is possible that the repetition of mood episodes decreases the death threshold cell and contributes to the appearance of disorders cognition in bipolar patients [24]. To date, the origin of the cognitive impairment of, however, bipolar disease and its pathophysiological mechanisms remain unclear.

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In summary, a considerable body of data confirms the presence of neurobiological abnormalities in bipolar disease, developing over time during decompensation episodes. Thus, future studies of bipolar disorder should focus on the mechanisms related to the onset and course of cognitive decline in bipolar patients in order to allow prevention and rehabilitation interventions upstream. Bipolar disorder seems to be associated with generalized age-related structural grey matter volume reductions and functional brain alterations thus suggesting the presence of neurodegenerative processes [25].

Conclusion

Mood disorders in the elderly have a heavy public health impact. It is currently proven that elderly subjects suffering from psychiatric pathologies present mortality rates 1.5 to 2.5 times higher than those of the general population and bipolar disorder in the elderly is not escaped [26]. The consequences on the quality of life of patients are not negligible (increase suicide risk and a number of hospitalizations, significant functional degradation). A demented-looking cognitive involution of bipolar disorder seems regularly noted, but its semiological contours remain ill-defined. This hypothesis of the existence of dementia specific to bipolar illness needs to be evaluated in the context of prospective studies, with a large number of patients in order to avoid bias and aspects such as the age of onset and duration of the disease, the frequency of decompensation, medical comorbidities and treatments used should also be studied. Moreover, knowledge of predictors of cognitive decline would help to personalize the care of bipolar patients, target subjects at risk of development of dementia, and carry out early interventions. Currently, even if drug iatrogeny cannot be the sole cause of the development of dementia following bipolarity [27]. The therapist must constrain himself to an optimal use of psychotropic treatments. Lithium has proved useful as a potential agent in slowing down this accelerated aging process in BD, potentially reversing effects induced by the disorder [28]. Continued treatment with lithium was associated with a reduced rate of dementia in patients with bipolar disorder in contrast to continued treatment with anticonvulsants, antidepressants, or antipsychotics [29].

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