

Lithium use in bipolar older people

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Abstract

Lithium has been used in bipolar disorder both as monotherapy and in combination with other drugs. Lithium remains a drug of choice in the treatment of older people affective disorder.

According to a United Nations report [1], by 2025–2030, the older population (over age 60 years) will grow 3.5 times more rapidly than the general population. The same report showed that types I and II Bipolar Disorder (BD) affect 0.5–1.0% of older adults and BD in the geriatric population is approximately one-third as common as in younger populations.

Roth [2] suggested that 50% of older people admissions were accounted by patients suffering from bipolar affective disorder at the age of 60 and above, out of which 55% presented as first episode. The recent prevalence of late-life mania is estimated to be 8–10% in older psychiatric inpatient admissions [3], and 6% of geriatric psychiatry outpatient visits [4]. Although the number of relapses seen in the bipolar illness tends to be greater than in unipolar, the probability of early relapse increases steadily with age, and the illness free intervals are likely to be shorter [5]. Untreated bipolar affective disorder in older people is associated with morbidity and mortality and the diagnosis can be confounded by overlap with other clinical syndromes such as organic mood disorder, dementia, delirium and medical co-morbidities [6].

Although numerous therapeutic agents, such as anticholinergics, corticosteroids, dopamine antagonists, amphetamines and sympathomimetics, baclofen and bromides, have been linked to mania, mania in older people can occur in the context of antidepressant therapy especially with later age of onset [7].

Lithium has been used to treat mania and prevent recurrent episodes in bipolar disorder. Concurrent use of lithium together with antidepressant is effective in the prophylaxis of recurrent depression [8]. A review by Mendels [9], reported Lithium is showing antidepressant effect on its own while Katona [10], showed lithium to be superior to tricyclic antidepressants. Nevertheless, lithium should not be the first drug of choice for elderly depression [11].

Lithium monotherapy is proved efficient against manic, depressive or mixed episodes and has better evidence for prevention of new episodes than other agents together with reduced risk of suicide in bipolar patients [12]. A Canadian study [13], reported less rate of lethal doses of lithium (3%) compared with antipsychotics (32%), benzodiazepines (27%) and Carbamazepine (21%). Combination with antipsychotics has been proved effective in treatment of schizoaffective disorder [14]; aggression [15]; and self-harming behaviour [16].

Neuroimaging techniques identified that long-term lithium treatment is associated with increased total grey matter [17], increased

hippocampal volume [18], and decreased white matter microstructural abnormalities [19]. Using lithium-7 MRS studies [20], showed that increased brain but not serum lithium levels were associated with increased depression symptoms as well as frontal executive dysfunction. In addition, brain lithium levels were associated with increased N-acetyl aspartate levels suggesting neuroprotective and neurotrophic effects of lithium treatment [21].

Population based studies have suggested that lithium might potentially ameliorate risk of dementia or Alzheimer's disease; however, the methodological limitations of observational data did not recommend Lithium as a treatment specific to cognition in older people BD [22].

Clinicians have appreciated the special hazards of lithium therapy in older people because of its pharmacokinetics and pharmacodynamic properties [23]. The adverse effects of lithium can involve central nervous, endocrine, cardiovascular, gastrointestinal and genitourinary systems. Increased age probably imports increased sensitivity to side-effects and toxicity of lithium [24], and toxicity may be both concentration and time dependent [25].

It is important that clinicians discuss indications, contraindications and side-effects as the tolerability of lithium is particularly important for older people. A baseline laboratory data and regular monitoring are important. Early intervention and access to specialist services are important to reduce disease burden and improve outcomes.

In conclusion, lithium remains a drug of choice in the treatment of older people affective disorder. Due to age-related pharmacokinetics, low serum levels are often recommended in older people. Nevertheless, lithium remains beneficial and safe in older people. Future research should address outcomes beyond symptom control and focus on cognitive component of the illness.

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