THE INFLUENCE OF “ANA ASLAN” GH3 BIOTROPHIC TREATMENT ON PATIENTS WITH TARDIVE DEPRESSION

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ABSTRACT
A retrospective study was made on a number of 76 patients aged between 65 and 84 years, hospitalized in the 2012-2014 period, selected based on the diagnosis of tardive depression, under biotrophic treatment with “Ana Aslan” Gerovital GH3. The statistical analysis of the study data identified significantly higher results of the mental, emotional, and physical status as revealed by general clinical examination and psychological evaluation.

Key words: Tardive depression, Gerovital H3, Geriatric Depression Scale (GDS).

Introduction
Depression, integrated in the group of affective disorders, is considered the most common mental disorder found in elderly population, their incidence reaching 8-15%. It appears to be more common in men than women over 75 years of age, unlike adulthood depression. The elderly man, living alone, is a person with an increased risk for depression and suicide\(^4\)\(^5\).

As an expression of the degree or severity of depression, suicides are relatively common in elderly people; consequently, successful suicides represent 25-30% of all suicides at all ages, while the elderly population represents 10-14% of the general population. Enhanced self-destructive behaviour in this population group, compared with other age groups, has multiple explanations of psycho-socio-familial nature\(^6\)\(^7\). Statistics show that people over 85 commit suicide 13 times more often than 15-24 year-old subjects, and there are 44 suicides per 100,000 people in the 55-64 age group and 144 in the over-85 one.

Our country is no exception in this respect, the highest rate of suicide being found in the over-65 age group, with a 1.8 higher number of men who commit suicide than women\(^6\)\(^8\). However, all ages considered, Romania’s suicide rate is lower, being among the last five European countries.

If reported to the number of people in assisted living facilities, an important number of suicides occur in the long-term elderly care facilities, and in nursing-hospital homes. Suicide often occurs at early admission as an expression of the inability and refusal to adapt to the new life situation (the so-called crisis of adaptation), or as a form of protest against the conduct of the family who opted for this form of isolation (from the elderly’s perspective), or of care and protection (from the family’s perspective)\(^9\)\(^10\)

The most important forms of depression in elderly patients are: neurotic depression, psycho-organic and depressive syndromes (in degenerative brain diseases - dementia, vascular, infectious, toxic, tumoral); symptomatic depressions (in painful diseases, endocrine and metabolic dis-
In the etiology of the elderly there are factors also common of depression in adults, as well as specific factors explaining the higher incidence of this mental disorder in old age: genetic (heredofamilial), pathological (damaging of the neuraxis, poisoning), specific to ageing - ageing awareness (painful awareness of changes characteristic of senescence - edentation, baldness, wrinkles, diminishing of physical and intellectual capacity, libido and sexual potency); changes in the environment (family, neighbours, moving house, institutionalization in social care units); social status changes (retirement) or economic (revenue reduction), concerns about the idea of approaching death, treatments with medication having depressive side effects\(^{(12-14)}\).

The clinical picture of depression in the elderly also expresses some characteristic features if compared with the classical clinical picture of depression. Characteristic symptoms in elderly depressive patients are: somatic complaints, regressive behaviour, aggressive and cognitive reduction, decreased mental efficiency, loss of self-esteem, social isolation, poverty of speech. In all cases depression in the elderly coexists (being generated, maintained or favoured) with somatic impairment, which requires, in addition to clinical psychiatric and psychological examination, thorough clinical and paraclinical examination of different body organs and systems. Cardiovascular and gastrointestinal diseases, hypothyroidism, neoplasia, on the one hand, and psycho-organic disorders (revealed by clinical and laboratory neurological examinations - imaging, EEG, CSF findings), on the other hand, are especially accompanied by depression\(^{(15-17)}\).

The evolution also has some characteristic features so that, after each new depressive phase, the free intervals become shorter and, simultaneously, the depressive phases become longer, but the symptoms alleviate with the progressive monotony of the content. In old age these depressive attacks are triggered by psycho-social events, of an existential nature, such as: widowhood, moving house, hard life, new diseases, institutionalization\(^{(18)}\).
The study was conducted on a group of 76 patients aged between 65 and 84 years, admitted and treated in “Sf. Apostol Andrei” Clinical Emergency County Hospital in Galati, the Department of Geriatrics, over a period of two years (2013-2014). The selection criterion was the presence of the clinical picture of tardive depression. The study method used was the application of the GDS before and after treatment with GH3. The GDS is the common geriatric assessment tool.20

Some of the patients in the study lot were under treatment with GH3 and the others, with antidepressant medication (escitalopram, mirtazapine, sertraline and tianeptine).

The active ingredient of GH3 is procaine chlorhydrate (p-aminobenzoildiethylaminoethanol). To this substance, glutamic acid, disodium phosphate and calcium metabisulphite were added. This combination is known as Gerovital - GH3. The main indications of GH3 are: protection of the human body from ageing, antidepressant effect, antiparkinsonian action, protection of articular structures, anaesthetic and analgesic effects, muscle contraction inhibitor, decreased serum levels of LDL cholesterol, increased serum levels of HDL cholesterol, antplatelet action, vasodilator, protection of the cardiac muscle and male sexual potency enhancement.

The therapy with GH3 was covered as follows: the first cure in hospital - after standard testing (the first 2 days), 1 intramuscular injection with GH3 (5 ml) daily for 12 days. On discharge, the patient was recommended to repeat the cure in 6 months - 1 intramuscular daily injection with GH3 (5 ml) Monday to Friday (for 5 days), associated with pills on Saturday and Sunday. The patients followed this cure twice a year for two years.

The following parameters were included in the study: age, sex, place of residence, marital status, signs and symptoms of patients, medical treatment. The statistical method used was the statistical software SPSS 1.1.1.

Results

The analysis of statistical data shows the predominance of females, with 72.37% of the total number of patients under study (Table 1 and Figure 1). The incidence is higher in the urban areas (Table 2 and Figure 2).

A higher incidence is identified in the 75-84 years age group (Table 3 and Figure 3).

<table>
<thead>
<tr>
<th>Total</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td>21</td>
<td>55</td>
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</tbody>
</table>

Table 1: Incidence of tardive depression by sex.

<table>
<thead>
<tr>
<th>Total no.</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td>62</td>
<td>14</td>
</tr>
</tbody>
</table>

Table 2: Incidence of tardive depression by place of residence.

<table>
<thead>
<tr>
<th>Total no.</th>
<th>65-74 years</th>
<th>75-84 years</th>
<th>85 years and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td>25(32.89)</td>
<td>39(51.32%)</td>
<td>12(15.79%)</td>
</tr>
</tbody>
</table>

Table 3: Histogram by patient age.

Figure 1: Graphic representation of patient incidence by sex.

Figure 2: Incidence of tardive depression by place of residence.

Figure 3: Incidence of tardive depression by age group.
It can be noticed that more than half of the patients under study (68.43%) have insufficient financial resources to cover an optimal living standard (Table 5 and Figure 5).

In terms of symptomatology, it can be noted that 100% of the patients have depressive disposition, 82.89% manifest anxiety, 46.05% have cephalalgia, 19.74% have palpitations, and 56.58% have sleep disorders (Table 6 and Figure 6).

Of the total number of patients under study, only 34.21% are on antidepressants, whereas the rest (65.79%) are on Gerovital H3 (Table 7 and Figure 7).

The analysis of the treatment efficacy shows that favourable results were recorded in 98% of the patients on Gerovital H3, and only in 73.08% of those on antidepressants (Table 8 and Figures 8 and 9).

Discussion

In 1952 the first Institute of Geriatrics and Gerontology in the world was founded, and it was named the National Institute of Gerontology and Geriatrics, Bucharest, Romania. There, Professor
Ana Aslan created the first two original drugs, GH3 and GH4 Aslavital, two drugs that have been used successfully worldwide for slowing ageing and the geriatric treatment of specific diseases\(^{(21)}\).

The elderly status is a risk factor in the complex determinism of mental disorders. The biological, psychological and social changes that accompany old age influence in many ways the mental disorders met in this period of life. In modern times, depression is one of the most frequent and serious mental disorders, with a remarkable share in overall morbidity and mortality. Depressions are considered the most common psychiatric disorders found in elderly population, their incidence being appreciated to reach 8-15%. It appears to be more common in men than women over 75 years of age, unlike adulthood depression. The elderly man, living alone, is a person with an increased risk for depression and suicide\(^{(22,23)}\).

The objectives of the present study were as follows:

- the dynamics of admission of patients with tardive depression in the Department of Geriatrics and Gerontology, the “Sf. Apostol Andrei” Clinical Emergency County Hospital in Galati, between 2013 and 2014;
- the assessment of the prevalence of tardive depression in the elderly;
- highlighting the symptomatology specific to tardive depression;
- the efficacy of Gerovital H3 treatment in elderly patients with depression.

In all patients treated with GH3, remarkably superior results of the mental, emotional, and physical status were revealed by the general clinical examination and the psychological assessment (which included verbal fluency tests, depression scales) as compared with those in patients under treatment with typical antidepressants.

According to the present study, the incidence of tardive depression in females is 72.37%, and only 27.63% in males.

The urban-rural place of residence highlights a massive predominance of urban patients (81.58%) when compared with patients in rural areas, which does not necessarily mean that people who live in cities are more often depressed, but rather that, more than inhabitants of rural areas, they have access to information on the symptoms and the treatment and care of depression.

The age group more prone to tardive depression is 75-85 years.

**Conclusion**

This study shows that depression in elderly patients can be successfully treated with GH3 on a long term because, due to its eutrophic effect, GH3 maintains the balance of cortical processes ensuring the normal functioning of the nervous system (memory, attention, concentration, affectivity). Also what should not be neglected is the intersection of biological therapy with individual psychotherapy methods, especially counselling and supportive psychotherapy, as well as suitable nursing focused on the individual needs of patients so as to increase the quality of their life and an easier integration in the family. The existence of tardive depression is a clinical reality in geriatric and psychiatric practice.

**References**


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