

## Analytical aspects of depression among elderly

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### Introduction

The depressive states of the elderly are frequent and difficult to diagnose due mainly to their clinical heterogeneity. One of the reasons for the increase in the rate of suicide in the over 80 years is probably the non-recognition of depressive states. Thymic and affective complaints frequently occur with advancing age and are too often attributed to the consequences of normal aging, which is accompanied by the successive losses that characterize old age. However, we must insist on the need to recognize the existence of a thymic disorder that we can treat because the latter will cause, in addition to excessive suffering but also a significant handicap in the daily operation from subject. We will try in this article to highlight the specificities of this pathology in the elderly and its management.

### Epidemiology

The results of the epidemiological studies on depression vary according to the definitions of depression and methods of identification and evaluation [1]. It seems that the main problem lies in the choice of diagnostic criteria and arguments exist for the hypothesis that the depression of the elderly person may have symptomatic profiles different from those observed in young adults. It is not a different disease but rather a clinical form where symptomatic differences may represent subtypes of aging-related brain disorders. It is also known that the health status of the elderly has improved overall in recent years. It must be emphasized, however, that this observation covers highly heterogeneous situations. In fact, the state of health of an institutionalized person has nothing in common with that of an autonomous person living at home. This heterogeneity is also found when one looks at the prevalence of depression. Thus the authors agree to describe this prevalence according to the situation of the subjects. There are studies in general population, studies in care structure and accommodation and the results are very different.

In general population, the prevalence rate is estimated between 2 and 3% for a major depressive episode defined according to the DSM V after 65 years [2]. If one is interested in dysphoria, that is to say the less well-characterized depressive episodes, the rates can be as high as 10 to 15% [3, 4]. The studies carried out in general medicine are worthy of interest because it is the general practitioners who see, more than the psychiatrists, old depressed subjects, because of their availability and especially of the look often pejorative that the elderly subjects are on the psychiatry. About 15 to 30% of seniors who visit general practice have significant depressive symptoms. It is often a somatic disorder that causes the subject to consult, which makes the diagnosis more difficult [5].

In institutionalized subjects, the authors manage to identify a prevalence rate of up to 40%. Some of these subjects present with chronic and severe forms of depression (10%) that persist for a long time and may prevent the resolution of concomitant somatic problems [6].

Overall, major depression and depressive symptoms are more common in women but the frequency of suicide is higher in men. The prevalence of suicide in the depression of the elderly seems to be 4 times higher than in young people [7]. In fact, elderly people "succeed" in 54- 79% of cases. Depression is an important factor of mortality in institutionalized elderly populations and constitutes a very negative prognostic risk factor for associated pathologies (infarction, stroke, hip fracture, etc.) [8].

### Risk factors

The causes or risk factors of depression are schematically of 3 major types: biological, psychological and social [9]. Depression is more common in patients with severe or chronic somatic conditions, loss of autonomy or disabling sensory deficits. Lifestyle changes, separations, bereavement, loss of social and family ties and roles, or a new role (such as caring for a sick spouse) are all factors that contribute to depression. Epidemiological studies also show that low-income and low-cultural subjects are at greater risk of depression than others. Family and biological studies suggest the possible involvement of genetic factors in major depression. However, the family terrain plays a much less important role for the elderly than for the young adult. Changes in neurotransmitter activity and metabolism with advancing age are also risk factors for developing depression [10]. Some treatments can trigger or aggravate a depressive state. These "iatrogenic" forms are sometimes difficult to recognize, the symptomatology may develop a few days after initiation as weeks later. Corticosteroids are one example. Neuroendocrine changes also appear to affect mood. Indeed, some studies show a positive association between increased secretion of cortisol and the presence of depressive episodes. Dysregulations of the hypothalamic axis can also be associated with depressive episodes [11]. Finally, the high frequency of depressive states in peri-menopause emphasizing the role of estrogen deficiency in the onset of this type of symptoms [12]. In summary, there are many risk factors, but experience shows that in the elderly, depression is particularly prevalent among women, single or widowed individuals, those with recent bereavement or stressful events. So there are risk factors that are easy to spot if we take the trouble to consider them at their fair value.

### Semiological aspects

Depression is more difficult to recognize in the elderly because of the somatic changes that accompany aging, the frequent entanglement with somatic conditions with the idea that anhedonia or lack of pleasure inevitably accompanies old age. As a result, the depression of the elderly will be under diagnosed in about 40% of cases. Any sadness is not a sign of depression either. Emotional changes are frequent in the elderly and may be the consequence of physiological aging or symptoms induced by a somatic or iatrogenic condition common at this age. Sadness becomes pathological only when it is associated with a loss of interest and a slowdown, and there are circumstances such as grief, for example, where it must be respected.



The loss of interest experienced as unpleasant must attract attention, especially when it is disproportionate to the subject's physical and cognitive abilities [13]. The set of signs encountered in the depression of the adult subject can be found in the clinic of the depression of the elderly subject. However, it must be emphasized that the elderly person has a hard time being depressed and complaining about it. We must therefore identify, in addition to the central symptoms of depression that will not be expressed, signs such as loss of interest, asthenia and loss of energy, decreased appetite, changes observed during the waking sleep cycle, psychomotor slowing and difficulty in focusing, which will need to alert the doctor [14]. In conclusion, depressive presentations are often atypical: - Somatic complaints are considered as a means of expressing the painful experience of depression. These complaints are generally more frequent in the elderly patient compared to the young adult. - Cognitive complaints, because of idiopathic slowdown sign of depression, are often put forward by the patient. They constitute a double trap because they can mask the depression and deprive the patient of a therapeutic management. Moreover, these complaints may be the first manifestation of a degenerative pathology beginner. Depression can also be expressed by anxiety disorders, temper or irritability, or impulsivity. Recent compulsive alcoholism may also reflect a debilitating depression.

**Evaluation of the elderly depressed patient** At present, there is no consensus on the procedures to be used to detect depression in the elderly. There is a very often used instrument that is a 30-item scale for self-evaluation and can be reduced to 15 items without losing any of its sensitivity [15]. This is the Geriatric Depression Scale (GDS). Some authors have suggested the use of 4 items of this scale so that general practitioners or nurses, at home, can detect a depressive syndrome.

#### These 4 items are:

- are you basically satisfied with your life?
- do you consider that your life is empty?
- do you fear that something bad is happening to you?
- do you feel happy most of the time?

This 4-item scale is a good starting point and can be complemented by a list of predisposing factors: Does the patient have a history of depression, is he / she socially isolated, has chronic health problems, or has recently been mourned? Clinical history is the most important aspect of evaluation. There are 7 main points that he should be considered in all cases: -

family history: family history of depression or other psychiatric illnesses, - personal psychiatric history: does the patient have a documented history.

- personality: how does the patient function in terms of personality when he is not depressed? Information on this aspect should be collected from a person close to the patient.
- social antecedents: what is the optimal level of functioning of the patient, does he live alone, he goes on, does he receive home help.
- Suicide: Is the patient at risk of suicide. Has he made several suicide attempts?
- Somatic disorders: Does the patient have somatic disorders.
- What medications do he / she take at the time daily?
- Evolution of the depressive symptom: since when does the symptomatology evolve, what was its speed of installation.

The cognitive evaluation, even if it will be strongly disturbed by the depressive symptomatology, must be done with simple instruments [16]. For this purpose, the "Mini-Mental" can be used State Examination "(MMSE) that will provide a benchmark before starting antidepressant treatment. If cognitive impairment exists, it should improve with treatment if the subject does not present neurodegenerative pathology.

In addition, it is important to know that an elderly person with signs of cognitive impairment will have 4 times more of risk of presenting Alzheimer's disease a few years later compared to a depressed elderly in whom the cognitive functions are preserved.

### Evolution

The frailty of the depressed elderly subject is without question. Even after the resolution of the depressive episode, these subjects remain at risk of either relapse or somatic complications. The mortality rate has been estimated at 15%. Mortality can relieve immediate complications of depressive episodes (decubitus, malnutrition) but also occurs several years later because of the bad state subject physics. The prognosis of depression depends on the severity of the disorder. Evolution can be done towards complete cure without relapse, but a significant rate of patients presents relapses of during the first year. A significant proportion of depressed (approximately 10 %), will present a chronic course with persistence of depressive symptomatology disabling. Finally, it should be emphasized that the depression of the elderly subject in itself remains a risk factor for dementia is not insignificant [17].

### Treatments

The care of the depressed elderly subject is in the first place a comprehensive care. It must focus on the environmental factors that have favored the depressive syndrome but also associated somatic pathologies as well as the subject's prior personality. In addition to the pharmacological therapeutics represented by the prescription of psychotropic drugs, antidepressant drugs, we must not forget that elderly people respond to psychotherapy and that age is not in itself a contraindication.

### Pharmacological treatments

Elderly people are heavy users of psychotropic drugs. Average consumption in institution is higher than at home. Benzodiazepines will be more prescribed outpatient than that it is the neuroleptic that arrives at the top of prescriptions in medical structures [18], but unfortunately there are not adapted in elderly patients depressed. Aging is accompanied by a change in the pharmacokinetics of drugs by digestive resorption sometimes reduced, by a first-pass effect, by a reduction in hepatic excretion, renal excretion or protein fixation. These general remarks prescribing behavior and should be remembered: In most cases, dosages should be decreased as well as fractionated in the intake. Polypharmacy resulting in polymedication is a limiting factor in the prescription of psychotropic drugs and the patient is often at risk for drug interactions. The rate of side effects would also be higher in the elderly. The most iatrogenic often encountered are:

- confusion
- cognitive decline due to the effects of psychotropic drugs on cognitive functions, Parkinson's syndrome found with the prescription of neuroleptics but also with serotonin reuptake inhibitors that may cause an extrapyramidal syndrome,
- falls,
- hypotension
- cardiovascular effects with disorders of conduction, and finally,
- hyponatremia, because there is a risk of occurrence of a syndrome of inappropriate secretion of the anti-diuretic hormone when taking a serotonin reuptake inhibitor.

Any prescription of a pharmacological treatment obviously depends on the establishment of a reliable clinical diagnosis. In addition, the drug compliance of older people is a very common problem. This requires medical information of the patient and his entourage depression and treatment that remains a prerequisite for successful treatment [18]. Once the antidepressant treatment is prescribed, the duration of the treatment is in fact linked to the prevention of recurrence when it has been effective on acute episodes. It has been shown that the prosecution antidepressants would provide significantly greater prevention against recurrences than the placebo. As a rule, the treatment should be maintained 6 months after healing the first episode and 12 months to 2 years after the second.

It should be emphasized that the adage “start low, go slow” “start at a small dose, increase slowly” is particularly suitable for the conduct of antidepressant treatment in the elderly. These precautions allow, starting at low dosages, to avoid the side effects encountered at the beginning of treatment and increasing in small increments, avoids abrupt modifications of serum levels very often responsible for iatrogenies. SSRIs are commonly used to treat depression in the elderly without dual-blind placebo-controlled trials demonstrating efficacy in patients over 75 years of age [19].

Given the existence of significant changes in pharmacokinetics, as well as the existence of a polymedication another rule is that of monitoring the serum level of antidepressants that should be more common practice in the elderly. Faced with the inefficiency of a well conducted treatment, this practice will explain most situations by the discovery of too much serum low, but it will also explain the occurrence of unexpected side effects in cases accumulation of the product. Therapeutic strategies are guided by the tolerance of available products. First, he will be to prescribe serotonin reuptake inhibitors that are generally well tolerated and often effective on depressive symptoms. The effect will not be immediate and is often delayed by compared to the deadlines found in adults. So you should know to wait at least a month before judge an ineffective treatment and increase the dosage. Molecule changes for inefficiency should be guided by consistent and careful clinical reasoning in trying to eliminate all causes of inefficiency such as non-compliance before declaring the disorder resistant to molecule. Imipraminic antidepressants are prescribed as second-line significant side effects. For some authors, they would be more effective in elderly depression than serotonergic antidepressants [20]. Given the lack of response of conventional antidepressants in the subject of some authors have proposed the use of ketamine [21].

### Electroconvulsotherapy (ECT)

ECT is a treatment that must be used in the depression of the elderly resistant patient. The trends action remains unknown but their effectiveness remains unquestionably [22]. The indications in the elderly are the depressive syndrome with delusional disorders, pseudo dementia and the presence of contraindications to antidepressants or poor tolerance to these last. The side effects are very moderate and the contraindications would be limited to those of anesthesia. This technique still supports a very negative image of both public opinion and among physicians; however, the mortality rate would be between 1 in 10,000 or 50,000 cases, which would make it one of the safest medical treatments under anesthesia

### Psychological approaches

The solicitation of the patient to greater family and social participation is not to neglect (physical activity, senior club ...). Psychotherapy (supportive therapy, cognitive therapy) can play an important role in taking in charge of depression [23]. However, experience shows that this approach is rarely implemented in the elderly.

### Conclusion

Depression of the elderly is a major public health problem, both in terms of frequency and impact on quality of life, general health, and loss of autonomy and increased risk of suicide. In general or primary care, the screening and treatment of depression in the elderly remains extremely difficult, due in particular to an often atypical symptomatology, with the particularly frequent presence of somatic complaints, pain and / or hypochondriacally symptomatology. The “traditional” diagnostic criteria as presented by the DSM-IV and ICD-10 are often difficult to use in depressed elderly subjects. Depending on the antecedents, the clinical picture and the evolution, the association with other psychiatric disorders or degenerative neurological diseases of the central nervous system must be taken into account. The difficulty of making a diagnosis of certainty remains the main reason why the depression of the elderly is insufficiently diagnosed, whereas its frequency is high [24]. Major depression in older adults is common and can be effectively treated with antidepressants and electroconvulsive therapy.

Psychological therapies and exercise may also be effective for mild-moderate depression, for patients who prefer nonpharmacological treatment, or for patients who are too frail for drug treatments [18].

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