

Pathological Bereavement Revealing an Association of Hypothyroidism and Neurosyphilis

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Abstract: *Pathological bereavement is characterized by occurrence of psychiatric disorders. Mood disorders are the most one found. We expose the case of a young subject who presented mourning complicated by the appearance of a resistant depression. Initial paraclinical exams revealed a hypothyroidism. The symptomatology was marked by the appearance of a dementia syndrome revealing later a neurosyphilis. The existence of a context of triggering factor can delay the achievement of a paraclinical exams and can then cause the delay in diagnosis of a curable cause of depression or dementia and the association of multiples causes must be researched.*

Keywords: bereavement, depression, dementia, hypothyroidism, neurosyphilis

1. Introduction

Bereavement according to the DSM and the CIM is a normal process in life but which can be painful. In some particular cases it can become complicated (blocking the work of mourning) or pathological (occurrence of psychiatric disorders). The disorders most frequently found are depressive disorders which can be present a diagnostic problem confronted mostly by clinicians [1].

Depression, which prevalence increasing, may be primitive or secondary to an organic pathology whose treatment of the cause may improve its psychiatric symptoms. [2]

The occurrence of a dementia syndrome must lead to paraclinical investigations in search of a curable cause. [3]

There is a similarity between certain symptoms of depression and those of dementia, which may be the origin of confusion in the diagnostic procedure. The thyroidian disorders and the neurosyphilis are 2 entities which can be a cause of depression or dementia, but the association of the two remains less frequent.

2. Clinical Case

A 37-year-old patient, a driver by profession on sick leave for 4 months, brought by his wife for depressive syndrome started 7 months ago after the death of his only son by public accident and which is not improved by antidepressants. The patient presented a typical depression without suicidal ideation (Hamilton scale, Beck scale realized for the patient) and without other associated signs. The rest of the clinical examination was without particularity. An initial assessment was requested for the patient: blood ionogram, blood count, blood glucose, liver function, kidney function and ECG were no abnormality. On the other hand the thyroid assessment objectified a hypothyroidism. The patient was referred for endocrinological advice for further management before he was lost to follow-up. Two months later, the patient presented in consultation with his wife for the onset of memory problems and a slight improvement of the mood disorder under substitution treatment. Interview with the

patient objectified a dementia syndrome and the MMSE was 19 / 30. A brain MRI was requested which objectified a cortico-subcortical atrophy. EEG was without abnormality. The HIV serology was negative, but the TPHA / VDRL serology was positive. The serum TPHA / VDRL in the CSF was positive, with hyperproteinorachie and a normal glycorachy. The patient was put under a protocol of several cures of penicillin G sodium aqueous intravenous in high doses each of which lasts 10 days. The patient was seen after the 1st and 2nd penicillin G treatment with a marked improvement in his condition (Hamilton scale and the MMSE showed markedly improved scores) with reintegration of the patient in his professional activity.

3. Discussion

Depression, dementia and biereavement:

The confusion between mourning and depression is a problem confronting health professionals which has led to Reflections and changes in the criteria of DSM especially in its last two versions DSM IV and 5 [4]. Thus the exclusion criterion diagnosis of depression in states of mourning less than 2 months except complications in the DSM IV has been removed in the new version DSM 5 which implies the possibility of making an advanced diagnosis of depression [4].

The complicated or pathological mourning are 2 entities that emanates from the mourning and which are linked to endogenous factors (The constituents of the personality, The attachment style with the deceased person, The biological characteristics of the bereaved, The socio-economic, relational, cultural and religious situation of the bereaved), and exogenous factors (circumstances and the nature of the loss, deceased person) [1].

Several studies that have focused on the impact of family deaths on survivors have found intensified responses such as guilt, somatization, anger, despair when it comes to the death of an adult child (Hays et al., 1997) [5]. The first dementia symptoms coincide most often with the period following a death marking a deterioration of the patient's condition. (Feteanu, 2002). [6] The mechanisms of mourning and the resulting defects in the development of

the loss in people who have developed depression or dementia are still unknown but admittedly there

The role of depression in the induction of dementia disorders was supported by many researchers. (Foret, Seux & Staessen, 1998, Petersen, 2000) [1]. There are 2 conceptions that seek to clarify the link between depression and dementia. The first stipulating the existence of similar biological disorders in the two entities. The second is considering dementia as an evolving stage of depression or even a refuge from it.

Several studies have reported the occurrence of organic problems as complications of mourning such as cardiovascular diseases, cancer, physical problems and changes in eating habits and sleep disorders between 13 to 25 months after the loss in bereaved patients. especially in the elderly with a gender difference (Chen, Bierhals, Prigerson, Kasl, Mazure and Jacobs (1999). [7]

The finding of a resistant depression, after eliminating a pseudo resistance, must make look for the factors which could be at the origin of this nonresponse to the antidepressant treatment in particular the presence of a psychiatric comorbidity (Troubles of anxiety, Disorders related to the use of a substance Personality Disorders Other ...) or organic (Hypothyroidism Drugs: glucocorticoid antihypertensives Other: diabetes, coronary artery disease, HIV) [8]

Depression, dementia and hypothyroidism:

Depression occurs most often in female patients with a thyroid problem with a peak between 35 and 45 years of age. (Tucker, 1996) [2,9]. Increased recently in young and geriatric populations [8]. Subclinical hypothyroidism can result in lassitude, malaise or depressive syndrome that responds well to hormone replacement therapy as well as memory problems.

Several studies have shown a decrease in α - and β -adrenergic receptors and the synthesis and turnover of serotonin in patients with hypothyroidism. This could be the cause of anxio-depressive symptomatology or cognitive disorders.

Several studies (Monzani 1993, Baldini 1997, Nyström (1988) [2] tested cognition, especially memory and reaction time using Weschler Memory Scale and Bingley's memory test scales in patients treated with hypothyroidism. T4 have noticed improvements in cognitive functions, especially mnesic function after 6 months of treatment. These data were reinforced by the demonstration of an increase in cholinergic activity in the frontal cortex and in the hippocampus at treated and cognitively improved patients, which confirms the relationship between T4 and acetylcholine, which may explain the cognitive decline associated with hypothyroidism.

There is a strong correlation between the degree of intensity of depression and subjective memory complaints, but not when one tests memory performance for objective tests. (Kahn (1975). [2]

Depression is most often characterized by the presence of general memory deficits in the subjective reports of patients and is also objectified in objective memory tests especially in hospitalized patients and depressed young compared to those seen on an outpatient basis. [2]

Pathophysiologically, depression may be associated with dysregulation of the thyroid axis. The prescription of thyroid hormones in patients with depression may be of great importance because of their modulatory effect on mood by increasing serotonergic neurotransmission via 5-HT₂ receptors which become more sensitive (Bauer 2003.), [10] which may justify the addition of hormonal treatment in depression. [2]

Neurosyphilis

Late or tertiary neurosyphilis, may be the evolution of less than 10% of untreated syphilis patients and 3% of these may present syphilitic meningovascularitis [11,3]. The psychiatric symptomatology, most often, can be agitation, aggression, irritability or fugue. [12,13] Headaches, motor disorders and epileptic seizures as well as genito-sphincteric disorders represent the other functional signs of dementia reported by the literature [14]

Neurosyphilis may present a dementia chart that is similar to early onset alzheimer's with similar performance in executive function, memory, and language tests but with more behavioral disorder and attention [16, 15]

A psychiatric picture such as hallucinations, mood disorders, aggression or delusional syndrome may precede, accompany or succeed memory disorders of syphilitic dementia [17,18]

The early stage of neurosyphilis may no longer present symptoms or be manifested by a picture of meningitis or meningoencephalitis [19]. Neurosyphilis affecting the parenchyma is more symptomatic with psychiatric charts including dementia, psychosis, depression, and cognitive dysfunction [20,21] The most reported neuropsychiatric symptoms are personality change and hallucinations (48% of patients) [21]

Psychotic disorders are common and come second after memory disorders and character changes in general paralysis with the themes of greatness first followed by persecution and mystical themes [17].

The study of Chkili et al found that depressive disorders were common in neurosyphilis with general paralysis with a diagnosis delay of several months. However, the hypomanic pictures described in the neurosyphilis are not a common manifestation of the disease. [11]

Intravenous Penicillin G treatment remains the first-line treatment in the management of neurosyphilis, and lumbar puncture monitoring should be done between 3 and 6 months after treatment [19] allows for the improvement of psychiatric symptoms in patients which should no longer delay the diagnosis of an etiology so curable.

4. Conclusion

Resistant depression and dementia syndrome require investigation by paraclinic exams and the existence of a context of triggering factor must not delay their achievement because it can then cause the delay in diagnosis of a curable cause of depression or dementia and the association of multiples causes must be always researched.

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