



# Hyperprolactinemia is common in geriatric patients: A descriptive study

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## Introduction

Prolactin plays particular roles in reproductive physiology and bone health. Inappropriate elevation of serum prolactin leads to clinical symptoms and signs such as irregular menses, infertility, loss of libido, impotence, galactorrhea or fractures. However, in older women, due to the postmenopausal state, clinical findings of hyperprolactinemia do not occur or may be underestimated. Moreover, in older men and women, the findings caused by hyperprolactinemia may be associated with other frequent comorbid conditions. In this study, our primary objective was to determine the frequency of hyperprolactinemia and the secondary objective was to evaluate the causes of hyperprolactinemia in geriatric patients.

## Methods

In this prospective, cross-sectional study we screened 157 consecutive older (>65 years) patients who were admitted to the Department of Geriatrics. Demographic, clinical and biochemical characteristics of the participants were noted. In individuals who were demonstrated to have elevated serum prolactin, a detailed clinical assessment was performed to determine the cause of hyperprolactinemia.

## Results

Of 157 patients with a mean±SD age of 74±5 years, 89 (57%) were female and 69 (43%) were male. Eleven (7%) subjects (6M, 5F) had elevated serum prolactin. Mean age and gender distribution were similar between patients with hyperprolactinemia and patients without hyperprolactinemia. Mean prolactin concentrations were four times higher in patients with hyperprolactinemia than in patients without hyperprolactinemia (Mean±SD prolactin ng/mL, 39.9±17.9 vs 9.2±3.8,  $p<0.001$ , min:21, max:81). The primary geriatric diagnosis was dementia in five, Parkinson's disease in two and mood disorders in four. Drug-induced hyperprolactinemia was determined as the main reason for hyperprolactinemia (in 8 cases, 72%).

The culprit drugs were selective serotonin reuptake inhibitors in three, antipsychotics in three and calcium channel blockers in two. One patient had hyperprolactinemia due to chronic kidney disease; one had hydrocephalus and the other patient had elevated prolactin due to macroprolactin existence.

## Conclusion

Hyperprolactinemia is common in older patients and prolactin concentrations are mildly elevated. Drugs that interact with the prolactin axis are mainly responsible for high prolactin. Clinical consequences of mild prolactin elevation in older patients need to be addressed.

Table 1. Etiology of hyperprolactinemia in older adults

Cause	n (%)
<b>Drug-induced hyperprolactinemia</b>	8 (72)
Selective serotonin reuptake inhibitor	3 (27)
Antipsychotic	3 (27)
Calcium channel blocker	2 (18)
<b>Chronic kidney disease</b>	1 (9)
<b>Hydrocephalus</b>	1 (9)
<b>Macroprolactinemia</b>	1 (9)