

## FLUNARIZINE AND CINNARIZINE-INDUCED PARKINSONISM: 25 YEARS OF DE MELO-SOUZA'S SYNDROME

Drug-induced Parkinsonism (DIP) is the second most common cause of parkinsonism (PK)<sup>1</sup>. Flunarizine and cinnarizine induced parkinsonism (FCIP) is one of the most frequent forms and is commonly found in elderly female patients manifesting symmetrical motor symptoms with resting and/or postural tremor, often associated with depression, and occasionally acathisia and dyskinesia<sup>1</sup>.

FCIP was first described in Brazil in 1984 by De Melo-Souza during the IX Brazilian Congress of Neurology<sup>2</sup>. In his study, De Melo-Souza reported 5 female elderly patients with a past history of flunarizine use presenting with both PK and depression. A few years later, in 1989, De Melo-Souza and Ragazzo presented a larger series at the Annual Meeting of the American Academy of Neurology. In that series, all of the 28 patients (25 female, with a mean age of 66 years) had used flunarizine 10 mg daily for a mean time of 6 months. Along with a rigid-akinetic syndrome, 60% of the patients had tremor and 85% had depression. Only one patient presented with bucolingual dyskinesia and six had akathisia<sup>1</sup>.

According to Negrotti and Calzetti<sup>3</sup> and Martí-Masso and Poza<sup>4</sup> the clinical characteristics of cases with FCIP include: 1) Previous flunarizine or cinnarizine treatment; 2) PK diagnosed after onset of therapy with the drugs; 3) Clinical features are indistinguishable from Parkinson's disease, with a rigidity-akinetic syndrome, resting and postural tremor, but usually with bilateral onset, progressing with symmetrical findings and associated depressive disorder; 4) Predominantly affects elderly female patients; 5) Remission of PK symptoms after drug discontinuation; 6) **Other causes of PK (including other drugs) excluded.** Curiously, the first cases presented by De Melo-Souza 25 years ago with the main clinical features of FCIP were reported by him as "the crying older little women"<sup>1,2,5</sup>.

Twenty-five years later, FCIP is widely recognized as one of the most common cause of PK and it is now being called as De Melo e Souza's syndrome<sup>1,5</sup>.

### REFERENCES

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