

Bipolar Disorder and Male Infertility: Which is the Role of Valproic Acid? a Case Report

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The Valproic Acid (VPA) is an alternative choice in the treatment of bipolar disorders, because it provides a synergistic mood-stabilising and antipsychotic activity. Many side effects are well-known, (hepatotoxicity, hyperammonemic encephalopathy, metabolic and endocrine adverse events). The worldwide increasing rate of infertility induced many researchers to focus also on effects on female reproductive abnormalities, but male infertility was not followed by a similar number of studies.

In our case report, we describe a case of male infertility probably related to valproate (VPA) exposure.

A 51-year-old man suffering from bipolar disorder came to our attention during a manic relapse, since he had discontinued any therapy (Olanzapine 300 mg/die and Haloperidole 5 mg/die) because of weight gain and stigma in his social life. Subsequently, we prescribed Paliperidone 3 mg/die and VPA 900 mg/die and he had a rapid recover. After few months he showed us an infertility evaluation revealing a sperm count of 10,000,000/ml, but no motile sperm (100%), 90% with abnormal structure, in contrast with a 15 months older sperm exam, displaying 35% motile sperm. A hormonal evaluation of prolactine showed slightly higher rate (19,31 ng/ml), not enough to explain such laboratory results. Eventually, we decided to discontinue VPA and now we are waiting for further exams.

Even if rare, a direct effect of VPA on spermatid structure and function could be not so unusual as thought; despite this, we cannot exclude a role of paliperidone in our patient's fertility reduction, thus suggesting that further studies are needed.