

Priapism from low-dose clozapine

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Background:

Clozapine is an atypical antipsychotic that is used to treat refractory schizophrenia. The most feared side-effects that have limited its widespread use are agranulocytosis and myocarditis. However, many other side-effects still exist, including priapism. Most reported cases of clozapine-associated priapism involve co-exposures to other antipsychotics. We present a case of priapism from exposure to low dose clozapine as a single agent.

Case:

47 year-old male with a past psychiatric history of refractory schizophrenia presented to the ED with > 6 hrs of priapism. He had been managed with this single agent for years, but this was his third episode of priapism over the last 3 months; this episode occurred despite a lower dosage than the two prior episodes, and both necessitated cavernosal aspiration to achieve detumescence. His initial ED vital signs were: T = 102.5, BP 147/80, HR 121, RR 18, and O2 Sat 100%. On exam he was diaphoretic, tachycardic, had a painful erect penis, exhibited lower extremity rigidity and slight confusion. His labs were significant for a CK of 2414; urine drug screen from all 3 ED presentations were negative (including cocaine). During this visit, the patient underwent cavernosal phentolamine injections and aspiration without resolution of his symptoms. He ultimately required a Winter's and Ebbehøj shunt procedure by Urology. Although his priapism resolved after the procedure, he remained febrile for 24 hours postoperatively; blood and urine cultures were all negative. His CK, vitals, and mental status returned to normal within 48 hours and he was eventually discharged to psychiatry. His clozapine level upon ED arrival was 255 ng/ml (reference range 350-600 ng/mL); measured 24 hrs after his most recent dose.

Discussion:

Many antipsychotics have been reported to cause priapism. The varied incidence of this condition due to typical and atypical agents is thought to be from agent-specific antagonism of the alpha-1 adrenergic receptor. To our knowledge, there are only 4 prior case reports of priapism due to clozapine exposure as a single agent.