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Letter to the Editor

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A difficult case of satyriasis in an adolescent responding ultimately to a combination of paliperidone palmitate and naltrexone

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A 15-year-old Kuwaiti male was brought to hospital by his mother for oversexualized behaviors of few months duration. Because of his acting out behavior and concern for the safety of his family members, he was admitted to an IP facility. He was a product of elective cesarean section and a non-consanguineous monogamous family. He had a twin brother and two younger sisters. He experienced an uneventful developmental trajectory. He was 10th-grader in a public mainstream school with average scholastic attainment. He had no medical history of note. There was no history of seizures, head trauma, toxic exposures, or illicit substance use. He had a home-bound schizophrenic father. Anamnestic history suggested Attention-Deficit/Hyperactivity Disorder (ADHD) symptom profile. Shortly prior to admission, he has been assessed in a private psychiatric facility for repetitive washing, a diagnosis of Obsessive-Compulsive Disorder (OCD) was made and fluoxetine 20 mg/d was prescribed but he refused to comply.

On admission, he looked euphoric, disinhibited, uttering obscenities, showing sexual gestures, totally insightless, and with a "viscous" character. However, he demonstrated average psychomotor activity and sound sleep. Although he was not overtalkative, speech was noted for verbigeration. No history of sexual abuse was elicited, but access to adult material was reported by mother. Wechsler Intelligence Sclae for Children- 3rd edtion (WISC-3) scored Full scale IQ (FSIQ) of 79 (borderline) but with no scatter. Extensive medical work-up, including neuroimaging and electroencephalogram (EEG) was unremarkable. A tentative diagnosis of bipolar spectrum disorder was entertained and given the genetic load, he was commenced on paliperidone 3 mg titrated up to 9 mg/d with clonazepam 0.5 mg/d. He developed asymptomatic hyperprolactinemia at this dose and gained some weight.

In view of the history suggestive of ADHD, a trial of short-acting methylphenidate was tried. He rapidly experienced psychotomimetic side effects that mandated premature abortion of the trial with complete resolution of these transient psychotic symptoms.

He was discharged but hypersexuality and erratic compliance with treatment remained a problem. Hence, he was shifted to IM paliperidone palmitate 156 mg q 4 weeks and enrolled in an extensive behavioral program. Given the compulsive nature of his behavior, a trial with fluoxetine was commenced and increased to 40 mg/d without benefit. As an impulse dyscontrol, valproate was introduced at 600 mg/d. He developed extrapyramidal rigidity with no clinical improvement. In view of continued problem behaviors, hormonal treatment was suggested but declined by mother. Exploring the problem as an addictive behavior, we suggested to embark on an off-label trial of naltrexone. Viva voce informed consent of mother, the legal guardian, was obtained beforehand. Baseline liver function tests (LFTs) were normal. Naltexone was started at 25 mg/d. Over 4-week duration, there was marked reduction of sexual behavior, as reported by mother and objectified on Hypersexual Behavior Inventory as well. Three months have elapsed, at the time of writing, and patient is keeping well on paliperidone palmitate and naltrexone with great tolerability.

The working differential for oversexualized behaviors in children should include—sexual abuse, juvenile bipolar mood disorder, impulse dyscontrol (including iatrogenic, eg, aripiprazole with partial D2 agonism), poor social judgment (eg, ID), organicity (eg, Kluver-Bucy, Kleine-Levin), and imitating behaviors (exposure to nudity in the vicinity).[1,2]

These behaviors can prove serious, suffice to mention, for instance, using inappropriate "fetish," too excessive masturbation, self-injury during the act, indecent exposure, associated aggression, and forensic repercussions.[3]

For primary causes, when social adjustments, counseling, and psychotherapy fail to provide satisfactory results, it may be necessary to resort to pharmacotherapy.

One of our group (A.N.) suggested categorizing patients with primary satyriasis into one (or more) of five subsets to inform targeted psychopharmacotherapy. That said, overlap (both

phenomenological as well as neurobiological) is ubiquitous. These are—*impulsive, compulsive, addictive, emotional dysregulation,* and *executive dysfunction.*

Impulsive subtype-can respond to either (hyperactive) limbic blockade or (hypoactive) prefrontal control enhancement. The former is typified by common practice of prescribing risperidone (or paliperidone as in our report), which by virtue of potent D2 blockade in the tuberoinfundibular pathway can result in hyperprolactinemia and ergo decreasing sexual drive.[4] The later is exemplified by use of stimulants.

Compulsive subtype- with fair insight and ego-dystonicity, might respond to Selective serotonin reuptake inhibitors (SSRIs) (some data favors paroxetine) or clomipramine.

Addictive subtype—can be particularly responsive to naltrexone (as in our case). Similar reports abound in literature.

Emotional dysregulation subtype—might respond to anticonvulsant mood-stabilizers (eg, valproate or topiramate) or alternatively to beta-adrenergic blockers (eg, propranolol).[5]

Executive dysfunction subtype—commonly insightless with lack of social decorum, when in extremis, suggests for hormonal therapy. Ethical dilemmas abound. Mirtazapine, a nor-adrenergic specific serotonergic antidepressant (NaSSA) atypical antidepressant, with putative anti-libidinal actions has been successfully trialed in autism spectrum disorder (ASD) population.

To the best of our knowledge, this case is one of earliest to report on efficacy and safety of naltrexone adjuventia in child/adolescent psychiatric population (CAP) population with primary satyriasis. Definitely, large scale studies are needed to replicate this finding.

Disclosure. Ahmed Naguy, Prof. Saxby Pridmore, Seshni Moodliar-Rensburg, and Bibi Alamiri have no competing interests or financial affiliations to declare.

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