

# **Propofol-Associated Priapism in a Prepubescent Pediatric Patient**

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**Introduction:** Propofol is a commonly used sedative medication for procedural sedation with a limited side effect profile. Although well tolerated with minimal adverse reactions, uncommon side effects have been reported. We report the youngest case of priapism in a prepubescent male following the use of propofol.

**Methods:** Case report of priapism in a 9 year old male following the use of propofol for sedation in the Pediatric Intensive Care Unit (PICU) setting. The patient was admitted to the PICU for post-operative management following single-stage laryngotracheal reconstruction. On post-operative day two, our patient was initiated on propofol continuous infusion and up-titrated to 60 mcg/kg/min; at which time, he developed priapism. Propofol was then immediately discontinued and the priapism quickly resolved without any medical or surgical interventions.

**Results:** Priapism is a low-flow state and is considered a urological emergency requiring prompt recognition, withdrawal of suspected offending agents, and possible need for urologic consultation to alleviate complications. Although rare, priapism with propofol has been reported but never in a prepubescent male. The mechanism of propofol-associated priapism is not well understood, but it is thought that it may result from an autonomic system imbalance, leading to an increase in parasympathetic activity. In addition, propofol has been shown to affect nitric-oxide mediated smooth muscle relaxation. In our patient, we suspected propofol to be contributing factor to his priapism based on the temporal relationship between the initiation of the medication and symptoms, the fact that no other medications associated with priapism were administered, and resolution of symptoms after propofol discontinuation.

**Discussion:** Given the expansive use of propofol in pediatrics for sedation and anesthesia, pediatric clinicians should be cognizant of this rare adverse effect in pediatric patients with potentially disastrous complications.