A case of propofol dependence after repeated use for endoscopy

A 27-year-old man with a history of diazepam and midazolam abuse was admitted to the Department of Psychiatry at Seoul National Hospital with propofol (2,6-diisopropylphenol) dependence as a result of repeated endoscopic procedures with propofol sedation. After first receiving propofol for endoscopy at the age of 24, the patient began visiting endoscopists with growing frequency with the sole aim of receiving propofol. He underwent endoscopy once a week in June 2007. In December 2007, he visited seven clinics over a ten-day period. In July 2008, he underwent endoscopy for 15 consecutive days. The patient's propofol abuse continued until he was admitted to the closed psychiatric wards. He has since been hospitalized seven times for propofol dependence. The increased seeking behavior that led to the patient's uncontrollable desire for propofol is a common pattern in substance dependence.

Propofol is a widely used sedative hypnotic agent that exerts ultrarapid activation of special central γ -aminobutyric acid A receptors [1]. Over 456 000 patients have received propofol sedation for endoscopy worldwide [2]. A recent US study showed that 25.7% of endoscopic procedures involving sedation utilized propofol in 2006, compared with just 3.1% in 1989 [3]. Propofol may indeed be an effective sedative with relatively short recovery

times, but its therapeutic window is narrow. Since the introduction of propofol in the mid 1980s, 11 reports of propofol abuse and dependence have surfaced in the medical literature [1,4]. Although the addictive properties of propofol have yet to be proven, case reports suggest a link to dependence and abuse. Most warnings regarding propofol use, however, focus on cardiopulmonary complications [5]. This is the first report documenting the case of a patient repeatedly submitting to endoscopy solely to receive propofol. It highlights the risks in administering propofol to patients prone to drug abuse. Gastroenterologists should note that propofol dependence may develop in patients requesting sedation for repeated endoscopic procedures.

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