



Propofol as a controlled substance: poison or remedy

Young-Tae Jeon

Department of Anesthesiology and Pain Medicine, Seoul National University Bundang Hospital, Seongnam, Korea

Korea is the first, and perhaps only, country to classify propofol as a controlled substance. In February 2011, the Korean Ministry of Food and Drug Safety classified propofol as a psychotropic drug, making it illegal to prescribe or consume other than for stipulated treatments that may need sedation, such as a gastrointestinal endoscopy [1]. In this month's *Korean Journal of Anesthesiology*, we learned that Kim et al. [2] provided the reference data for the regulation of propofol in Korea as a controlled substance. The Korean Ministry of Food and Drug Safety considered the results of their survey.

In 2009, a report of nine cases of propofol abuse by medical personnel concluded that propofol required stricter control or designation as a controlled substance [3]. This study queried 95 councilors of Korean Society of Anesthesiologists on the abuse of propofol by their medical personnel. The nine cases included four anesthesiology residents, two other residents, an anesthesiology nurse, and two individuals with unknown backgrounds. Although this study has been criticized because the results are based on an incomplete survey of councilors whose recall may be inaccurate, it was the first report on propofol abuse in Korea.

Propofol has not been considered a controlled substance because it is not associated with physical dependency. Consequently, the addictive potential of the drug has received little attention. Although propofol has been used safely for over 30 years without significant addiction problems, the tragic death of pop icon Michael Jackson in 2009 brought the abuse of propofol by the general public into the spotlight. While physical dependency

is rare, psychological dependency is an important phenomenon. Euphoria, sexual fantasies and dreams, and sexual disinhibition upon awakening are well-known effects of propofol and can also occur after anesthesia and monitored anesthesia care.

Many countries agree that propofol should be subject to stricter control. However, misuse is not a real problem in those countries. They are concerned that stricter control of propofol would involve an increased administrative load. The US Food and Drug Administration requires that the drug be administered by healthcare professionals trained in the administration of general anesthesia. In the UK, it is always administered by anesthesiologists or intensivists. In the past, addiction has been a major issue for anesthesia personnel [4]. It has been suggested that a major contributor to propofol addiction is easy access. Although access alone does not result in drug abuse, tighter control allows for earlier detection and documentation in suspected cases of abuse [4].

What makes circumstances in Korea different from those in other countries? The authors argue that propofol abuse in non-healthcare professionals is not a social issue and more serious substance abuse including narcotics and marijuana is the main concern of regulatory body in other countries. Unlike the general situation in most countries, non-healthcare professional are exposed to propofol abuse in Korea. Most cases enrolled in this study were non-healthcare professional single women in their 20s. These cases became social issues. We hope that this study is a lesson for other countries where propofol abuse occurs. Paracelsus' famous quotation may be modified for this century as "Poison is in everything, and no thing is without poison. The usage (instead of dosage) makes it either a poison or a remedy."

Corresponding author: Young-Tae Jeon, M.D., Ph.D.
Department of Anesthesiology and Pain Medicine, Seoul National University Bundang Hospital, 82, Gumi-ro 173beon-gil, Bundang-gu, Seongnam 13620, Korea
Tel: 82-31-787-7493, Fax: 82-31-787-4063
E-mail: ytjeon@snuh.org

Korean J Anesthesiol 2015 December 68(6): 525-526
<http://dx.doi.org/10.4097/kjae.2015.68.6.525>

© This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Copyright © the Korean Society of Anesthesiologists, 2015

Online access in <http://ekja.org>

References

1. Psychotic drugs control act. Act No. 5529, 28 Feb 1998. Available from http://www.moleg.go.kr/lawinfo/engLawInfo;jsessionid=RCuRlvvr9hpcP1sHpsKfkdWmDc8d1DeMgUrwutQo4npebleTevh3XWVD3t0Wdm4s.moleg_a1_servlet_engine2?pstSeq=58352&pageIndex=4.
2. Kim E, Kim S, Hyun Y, Noh Y, Jung H, Han S, et al. Clinical and psychological characteristics of propofol abusers in Korea: a survey of propofol abuse in 38, non-healthcare professionals. *Korean J Anesthesiol* 2015; 68: 586-93.
3. Lee S, Lee MS, Kim YA, Ahn W, Lee HC. Propofol abuse of the medical personnel in operation room in Korea. *Korean J Leg Med* 2010; 34: 101-7.
4. Silverstein JH, Silva DA, Iberti TJ. Opioid addiction in anesthesiology. *Anesthesiology* 1993; 79: 354-75.