

## It May be Unsafe for Patients with Untreated Severe OSA Requiring Postoperative Narcotic to Undergo Ambulatory Surgery

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The recent article published in October 2010 by T.L. Stierer concluded that patients with OSA can be safely treated in an ambulatory care center with subsequent discharge to home.<sup>1</sup>

With the advancement of anesthetic techniques, use of short-acting anesthetic drugs and development of noninvasive surgery, anesthesia is becoming safer and the incidence of major adverse outcomes is very low. The incidence of unanticipated admission in ambulatory surgery is approximately 1-2%.<sup>2</sup> A study of major adverse events in OSA patients undergoing inpatient or outpatient surgery will require huge numbers of OSA patients. A failure to show that there was an increase in major adverse events such as unanticipated admission in 103 patients might be related to the small sample size.

The questionnaire tool in this study provided a prevalence of 4.8% in these patients with a > 70% likelihood of OSA. We agree with Gay's comment that the prevalence level in the Stierer paper seemed to be small compared to those reported in the literature.<sup>3</sup> In 1993, an epidemiologic study showed that 24% of males and 9% of females had AHI > 5.<sup>4</sup> In three studies using screening questionnaires to determine the frequency of patients at risk of OSA in the general surgical population, 24%, 27.5% and 23.7% were identified preoperatively at high risk for OSA using the Berlin questionnaire, the STOP questionnaire, and the Apnea Risk Evaluating System OSA screening questionnaire.<sup>5-7</sup>

The low incidence in this study might indicate that the Maislin questionnaire is less sensitive in identifying the OSA at risk patient.<sup>1</sup> Of the 103 OSA at risk patients, 29 patients gave a self-reported diagnosis of OSA and 74 were not diagnosed. However, the authors also reported that 94 patients gave a self-reported diagnosis of OSA in 2139 patients. This means that 65 patients with a self-reported diagnosis of OSA were not identified by the questionnaire. These patients might increase the risk of adverse events in the < 70% propensity group. Alternatively, 29 diagnosed OSA patients in the > 70% propensity group might have received CPAP resulting in a reduction in the adverse events.

Another important point is that there are a wide range of ambulatory surgical procedures and a wide variety of pain medications. For some procedures, pain can be

relieved by acetaminophen and nonsteroidal agents and postoperative narcotics are not required. However, there may be potential safety concerns to discharge the untreated OSA patients with high AHI and who require postoperative narcotics after ambulatory surgery.<sup>8</sup>

We need to do more studies on a larger number of OSA patients to understand the peri-operative risk and define the particular thresholds of OSA severity that are of concern. Would a higher AHI or a lower nocturnal O<sub>2</sub> saturation predict worse outcomes? Do we need to be concerned only in surgical procedures requiring postoperative narcotics? Further studies need to be done to make a final recommendation and we urge caution on this topic, as one death is too many.<sup>9</sup>

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### DISCLOSURE STATEMENT

Dr. Chung has indicated no financial conflicts of interest.