

DRUG-INDUCED SLEEP ENDOSCOPY

Surgical Treatment Overview | Drug-Induced Sleep Endoscopy

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Successful surgical treatment of obstructive sleep apnea is based on the accurate identification of the pattern of airway obstruction and targeted, effective treatment. In the throat, there are two major areas that can be responsible: the palate and tongue regions. For many years, the primary surgical treatment for obstructive sleep apnea was soft palate surgery, and this worked well for patients with blockage of breathing in the palate region alone. Unfortunately, many patients also appear to have blockage of breathing in the tongue region, and multiple procedures have been developed to address this in the hope of improving surgical outcomes.

During drug-induced sleep endoscopy, patients receive sedation administered by an anesthesiologist in the operating room. As patients begin to snore and have some blockage of their breathing, Dr. Kezirian passes a flexible telescope through one side of the nose in order to evaluate the throat and observe the potential blockage of breathing in the palate and tongue regions. This technique was described almost two decades ago and is used in centers around the world. Dr. Kezirian's research has advanced the understanding of drug-induced sleep endoscopy, and his ongoing work seeks to determine whether it predicts outcomes from surgery. Dr. Kezirian appreciates the opportunity to train other surgeons in this technique and other aspects of presurgical evaluation.

Why should I undergo drug-induced sleep endoscopy?

There are two major reasons that patients may consider undergoing drug-induced sleep endoscopy: to obtain additional information regarding whether they seem to have blockage of breathing at the palate and/or tongue regions and to determine which specific structures seem to be playing a major role in airway obstruction. This is true for patients who are considering surgery for the first time and in those who have not obtained ideal results after previous procedures. Dr. Kezirian incorporates information from other evaluation techniques to make a decision with our patients and believe that drug-induced sleep endoscopy provides additional, helpful information in certain patients.

RISKS

Allergic reaction

Patients who are allergic to egg products, soy, or glycerol should discuss this with your doctor. The sedative medication used in drug-induced sleep endoscopy is propofol, which contains egg lecithin, soybean oil, and glycerol, and the risk of allergy is particularly high in patients who are allergic to these.

Blockage or stoppage of breathing

Sedatives relax the muscles around the throat and can slow down breathing rates. To reduce the risk of this complication, the procedure is performed in the operating room with extensive monitoring of patients and with the involvement of the Anesthesia and Otolaryngology-Head and Neck Surgery teams. The medication is given very slowly, with the goal of giving just enough for patients to become sedated and start the process of snoring and blockage of breathing that has been shown on the sleep study

without sedation. It is uncommon for too much muscle relaxation or stoppage of breathing occurs, but there are many conservative treatments that can be performed such as stopping the medication (it takes effect quickly and wears off quickly), lifting the lower jaw forward, or having one of the physicians in the operating room use a mask to help with breathing. Alternatively, if these and other measures do not resolve the problem, a breathing tube can be placed through the mouth, or a tracheotomy (breathing tube directly through the neck into the windpipe) can be performed.

POSTOPERATIVE INSTRUCTIONS

Pain control

You should have no pain after this procedure, and no pain medications will be prescribed specifically for it.

Drowsiness

Because you have received anesthesia, you should take all necessary precautions, including not driving or operating heavy machinery. Generally, all patients should not work on the same day following the procedure, although many patients feel like they have recovered fully within a couple of hours after the procedure.

Follow up visit

Because drug-induced sleep endoscopy is performed to evaluate blockage of breathing in the throat, and generally patients will have a follow up appointment after the procedure to review the video and discuss the next steps to move forward with treatment.