

Research Shows Overweight Patients More Challenging to Sedate

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Deepak Krishnan, DDS

(PhysOrg.com) -- Patients with higher body mass indexes are more challenging to sedate, according to results found by a University of Cincinnati (UC) researcher studying data from common oral surgeries.

Karen Potaczek, DDS, chief resident at UC Health division of oral and maxillofacial surgery, wants doctors to better understand how the increasing prevalence of obesity will affect deep sedation during surgery. To do so, she worked with Deepak Krishnan, DDS, and division chief Robert Marciani, DMD, to review data from 431 patients who had undergone intravenous sedation at the division's clinic from December 2008 to April 2009.

They compared data on height, weight, age, gender and the reported levels of patient sedation, cooperation, discomfort and frequency of

respiratory events, or obstruction of the airway.

What they found was that obese patients were more than twice as likely to require airway intervention by physicians, who had to pull their tongue forward, move their jaw or take other measures to assure the patient's safe breathing. Those patients with higher BMIs also showed more signs of being less sedated, such as being more agitated, restless and anxious.

“Patients who are overweight or obese are more challenging to sedate and require more frequent interruptions in the surgery for repositioning and management of their airway,” says Potaczek. “Those patients showed they were more agitated, anxious or restless. They still received similar medications as those with normal BMI, but they weren't as sedated by those medications.”

Potaczek will present her findings Oct. 16 at the meeting of the American Association of Oral and Maxillofacial Surgeons (AAOMS) in Toronto.

She says it's a “public health concern” for doctors to understand the effects of higher BMIs on surgical management of patients.

“A lot of surgeons elect to have these patients done in an operating room, where they are intubated,” she says. “But as obesity prevalence increases, are we going to be taking all these patients into the operating room? The outpatient oral and maxillofacial surgical setting will be significantly affected by this.”

Krishnan says the research can serve as a precautionary tool for surgeons: “When you have someone with a higher BMI, you need to make sure the anesthesia is measured more carefully. It's a very thin balance between a patient being more sedated and being dangerously

sedated.”

He says the division will conduct future studies to look at the effects of different anesthetics on overweight or [obese patients](#).

Krishnan also will present at the AAOMS conference, speaking about the complications of a metal condylar prostheses in patients needing reconstruction of the temporomandibular joint (TMJ).

The prostheses are used in rare cases of patients who have had facial tumors removed or trauma to the jaw joint.

Krishnan says the prostheses are manufactured as temporary devices, recommended to be replaced after one to two years by a graft or a total TMJ prosthetic. But it’s often hard to persuade patients to have a second surgery to replace the device, he says, especially when they are experiencing no side effects.

Prompted by a patient whose prostheses had eroded through the skull, Krishnan worked with researchers at Canada’s Dalhousie University to review 21 prostheses that were placed or followed by the university.

He found a 19 percent complication rate in patients, most resulting from the prosthesis moving into the skull—the largest in the literature to date.

“There have been an overwhelming number of reports that say you can leave the prostheses there, but in a smaller case review I have four of them going into the skull,” he says. “This is very concerning.”

Krishnan recommends that physicians either change out the prostheses sooner or keep a close eye on patients who want to leave them in longer than the recommended time.

Provided by University of Cincinnati ([news](#) : [web](#))

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