AVATS Surgery Shown to Be Option for Patients Deemed “Inoperable”

ATS 2018, San Diego, CA – A new study demonstrates that awake video-assisted thoracoscopic surgery (AVATS) – a minimally invasive procedure that is done under local anesthesia and sedation – is a safe and effective alternative for patients with poor lung function and lung cancer who would normally be precluded from having surgery due to its risks. The study was presented at the 2018 American Thoracic Society International Conference.

“Video-assisted thoracoscopic surgery (VATS) is a well established procedure, but patients with poor pulmonary function often cannot have it because it is risky for them to go under general anesthesia,” said study author, Ara Klijian, MD, of Sharp Grossmont Hospital, La Mesa, California and Scripps Mercy Hospital, San Diego. “I extended the VATS procedure so that it is done under local anesthesia with sedation. This enabled me to do a variety of procedures including lobectomies, esophageal surgeries, decortications and other types of thoracic surgery, with better outcomes.”

Over the last 5 years, Dr. Klijian has performed more than 500 AVATS procedures without significant mortality or morbidity. In the current study, 246 patients with lung cancer had the AVATS procedure. Dr. Klijian demonstrated that patient safety was not compromised, that patients had a lower length of stay (1.6 days for patients who had a lobectomy, or removal of a lung) and better patient satisfaction.
Patients receiving the AVATS procedure typically have multiple chronic health conditions, as described in the abstract below, and poor lung function, which would typically increase the risk of surgical complications.

“By eliminating the need for endotracheal intubation and the comorbidity associated with general anesthesia, the AVATS procedure brings new, previously considered inoperable patients into the surgical arena,” Dr. Klijian said. “My long-term data have shown that this approach has better outcomes than traditional lung surgery with this select group of patients. It also reduces risks of hospital-acquired infection, as outpatient postoperative care minimizes the use of catheters.”

In the AVATS and VATS procedures, a tiny camera (thoracoscope) and surgical instruments are inserted into the chest through small incisions in the chest wall. The thoracoscope transmits images of the inside of the chest onto a video monitor, guiding the surgeon in performing the procedure.

The availability of the AVATS procedure is expected to increase, as Dr. Klijian has presented the technique and trained a number of other surgeons.

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Title: Awake Video-Assisted Thoracic Surgery for Patients with Poor Pulmonary Function

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Patients with poor pulmonary function are often precluded from surgical therapy. Awake video-assisted thoracic surgery (AVATS) done under local anesthesia and sedation allows for surgical resection of lung cancer previously deemed inoperable. Wedge resection, segmentectomy and even lobectomy are feasible and have been performed with outcomes comparable or better than those done under general anesthesia. Over 500 AVATS cases have been performed without significant morbidity or mortality. Lung resections for cancers done via AVATS have a length of stay for lobectomy of 1.6 days, even in patients with FEV1 under 0.6. These patients have multiple comorbidities including diabetes, COPD, atrial fibrillation, hypertension and hepatic and/or renal dysfunction. Of the patients undergoing resection, 203 of the 246 patients had FEV1 less than 0.8. Postoperative care of these patients has also been streamlined to minimize use of central lines, arterial, urinal and epidural catheters to minimize nosocomial infections. AVATS is a safe option in select lung cancer patients, who previously would be classified inoperable, resulting in lower length of stay, better patient satisfaction and presumably lower costs.