



講師：王曼玲 Man-Ling Wang

主題：

Non-intubated anesthesia for thoracoscopic surgery

摘要：

Thoracoscopic surgery has gained popularity due to its advantages of smaller incisions, reduced pain, faster recovery, and comparable long-term outcomes to traditional thoracotomy but with fewer complications. In the past, it was commonly believed that thoracoscopic surgery necessitated the use of double-lumen endotracheal tubes and general anesthesia to achieve single-lung ventilation. However, intubation-related complications, such as airway injuries, residual neuromuscular blockade, and ventilator-associated lung injury, are not uncommon.

Since 2009, National Taiwan University Hospital has been at the forefront of developing non-intubated thoracoscopic surgery, successfully treating over thousands of patients, including those requiring complex lung cancer lobectomy or segmentectomy. This innovative approach offers several potential benefits. Firstly, it eliminates the inevitable airway intervention and injury associated with intubated general anesthesia. Additionally, it reduces the incidence of postoperative nausea and vomiting. Moreover, non-intubated thoracoscopic surgery accelerates patient recovery, leading to increased patient satisfaction.



Non-intubated anesthesia in thoracoscopic surgery has been validated by clinical research, combined with single-incision or tubeless, further enhancing recovery after surgery. The routine application of high-flow nasal oxygen cannula during non-intubated thoracoscopic surgery has been demonstrated to improve arterial oxygen levels. Retrospective analysis supports its feasibility in thoracic surgical patients worldwide. Non-intubated thoracoscopic lobectomy is a validated alternative for clinical stage I non-small cell lung cancer treatment with comparable oncological outcomes to intubation surgery. The key seems not the tube, but the key components during non-intubated anesthesia: regional anesthesia, spontaneous breathing, and targeted sedation. Let's look back at the times without a tube, and rethink the lessons learned.