

## **Abstract**

### **CO2 laser surgery in otorhinolaryngology-site and complications: a 10-year experience at Ramathibodi Hospital.**

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**OBJECTIVE:** To present data on ten years' experience in CO2 laser surgery and associated complications among otorhinolaryngologic patients. **MATERIAL AND METHOD:** The study involved examining records of otorhinolaryngologic patients who underwent CO2 laser operations during a 10-year period (July 1, 1986-June 30, 1996). The sample consisted of 733 patients: 370 male and 363 female patients. CO2 laser surgery in otorhinolaryngology was first used in Ramathibodi Hospital on July 10, 1986. **RESULTS:** These patients were aged 2 months to 93 years with the mean age of 24.3 years (median = 16 years). Among 1,725 operations, 1,570 operations (91%) were performed under general anesthesia and 155 operations (9%) were performed under local anesthesia. In our series, the most frequent sites for laser surgery were as follows: larynx (77.22%), oral cavity and oropharynx (12.64%), skin (5.04%) and nose and paranasal sinuses (3.31%). Intraoperative complications occurred in 18 out of 1,725 (intra-operative complication rate of 1%). Laser-related complications were found in 13 out of 1,725 operations (0.75%) and non laser-related complications were found in 5 out of 1,725 operations (0.25%). There was no mortality. **CONCLUSION:** CO2 laser is a useful modality of treatment in otorhinolaryngologic surgery especially in the larynx. Our experience demonstrates the relative low incidence of complications (1%) and no mortality in otorhinolaryngology head and neck surgery.