

# Guest Editorial

---

## OFFICE LASER PROCEDURES

Advancements in medical technology and basic research have translated into paradigm shift in the management of various laryngeal conditions. One such instance is the application of fiber laser technology in the office management of conditions such as recurrent respiratory papilloma (RRP), laryngeal keratosis and dysplasia, varices and even small vocal fold polyps.

The development of chip-on-tip flexible laryngoscopes have allowed for excellent visualization of the larynx in an office setting, which when coupled with the use of a fiber laser via the side port working channel of the flexible scope permits various office laser procedures to be performed relatively well, with proven safety.

As these office laser procedures are performed with the patient mildly sedated or only with local anesthesia, it is vital for the operating team to be well versed with the technique and be efficient with time taken for the procedure.

Fiber lasers are typically hemoangiolytic lasers as they have a wavelength (585 nm pulsed dye laser, 532 nm KTP laser) close to that of oxyhemoglobin, thus the energy is preferentially absorbed by vascular lesions. The CO<sub>2</sub> laser (10,600 nm) has also been made available recently in a fiber mode.

Epithelial lesions such as keratosis, dysplasia and RRP may be effectively tackled by flexible laser procedures in the office setting. If tissue sampling is needed for histopathology, a targeted biopsy may be performed with the aid of a flexible forceps prior to the laser procedure. The greatest advantages of this procedure are avoidance of general anesthesia and admission in the hospital, which reduce cost both for the patient and hospital. This technique is extremely useful in patients with trismus, an extremely anterior larynx that is difficult to expose and those who are high risk candidates for general anesthesia.

One of the major drawbacks of flexible fiber laser procedures is that fine phonomicrosurgery cannot be performed and only laser fulguration of the lesion is achieved. Thus, the entire specimen cannot be assessed histopathologically. Secondly, the fibers of the laser which are designed for one time use are currently expensive.

Judicious patient selection is the key to optimally use this exciting new technology. With the advent of newer and less expensive lasers, this procedure seems extremely promising.



**Nupur Kapoor Nerurkar**

Laryngologist and Voice Surgeon

Bombay Hospital & Medical Research Center

Mumbai, India

nupurkapoor@yahoo.com