

The role of ENT surgeon in the ICU

Balakrishnan D

BSc, MS, DLO, PhD

Paediatric ENT surgeon, Kanchi Kamakoti Childs Trust Hospital, Chennai 34
Hon Secretary, Assn. of Paediatric Otolaryngologists of India, National Hqrs.
Professor of ENT, Madras Medical College

(Editor's note: The author has a rich experience in ENT. His current interests are Paediatric ENT and Sleep Apnoea. In this article, he first describes the rapid advances made recently in the ENT field. Then he adopts a story-book style and describes several cases seen in ICU setting by him. Deftly hidden in each story, a discerning reader will find several important take home messages. I hope this style will be enjoyed by you and also be fruitful in your practice, when you meet one such case)

The treatment culture in the Intensive Care Unit is essentially a team work. Each and every cog is important. ENT services, when required in the ICU, are twofold. Certain conditions like Stridor, Vertigo and Obstructive Sleep Apnoea require ENT surgeon's expertise right at the time of initial diagnostic evaluation. There is also a secondary role of assisting the anaesthesiologist and the internist, in maintaining the vital airway.

Recently, advances in the electronic and in the technological fields have broadened the ENT surgeon's armamentarium - now, cold light sources illuminate the rigid endoscopes; the Hopkins rod lenses power the optical telescopes; flexible bronchoscopes have become slimmer while their working channels have become roomier; endoscopic cameras have become standard accessories and computers now have simplified storage and transfer of images. With such documentation, discussions and exchange of ideas between various specialists have now become more objective and meaningful.

In this article, I expect to illustrate the role of ENT surgeon in the ICU, by describing a few real situations encountered by me, over the years. The first patient I describe was an accountant in a private company, seen by me twentyseven years ago. The IMCU of Government General Hospital, Madras had been commissioned just one month earlier and I was the first house surgeon posted there. At about eight in the night, this forty-year old accountant arrived in the casualty semiconscious. The patient had been working late, alone in his cabin. An office colleague had found him sweating and breathless, and had brought him straight to GH. The colleague also volunteered that the patient was a known asthmatic. No further history

could be obtained because the patient was not able to talk at all. One look at the patient and the Duty Assistant Physician decided to put the patient on the ventilator straightaway. While he prepared the ventilator settings, I was asked me to intubate. As I put in the Macintosh laryngoscope, I was in for a great surprise! There was a metal paper clip (Gem Clip) sitting astride the vocal cords. I cried to the DAP, who took it out with Magill's forceps. The patient could now vocalize and rapidly became better. The cerebral oedema due to the earlier hypoxemia started subsiding with ventilation and with steroids. After about six hours, he sat up in his bed. It turned out that this accountant had always had the habit of keeping the gem clip between his teeth, while he copied a sheaf of papers. This time, the clip had flown inside and had lodged squarely in the glottic aperture. Obviously the sharp edges had caused oedema and had obstructed the airway. The history of asthma had been a confounder. Such cases however are very rare.

The next similar case I saw was one month ago - a full twenty seven years later. A lady living in a town about 100 km away had been keeping a hair clip in her teeth, while she combed her hair. The clip had tripped into her glottis. The lady had attempted removal, using her fingers and certain sharp instruments. The resulting oedema had been quite severe, resulting in almost total airway obstruction. The doctor in that town, who saw the patient first, had wisely done a life saving tracheostomy and referred her to me. Of course, in the presence of the tracheostomy, a laryngoscopy and removal were quite easy. The laryngeal oedema settled down in a few days and the lady went home happy.

Foreign bodies may occur in other areas like the trachea and the bronchi. Many times after the initial coughing episodes, the patient may quieten, leading us to honestly discount the possibility of a foreign body in the airway. Such foreign bodies, when neglected may slowly creep up on us masquerading as a persistent wheeze, unexplained recalcitrant pneumonitis or an abscess. These patients are likely land up in an ICU. In all these cases, a bronchoscopy will unmask the culprit.

About a decade ago, a young girl, married just three months earlier had been admitted febrile and in shock in an ICU. A host of causes like dengue, a tubal rupture, and hepatitis had been entertained. Because she also had severe odynophagia, I had been called. I examined the throat and found a fullness in

the posterior pharyngeal wall. A lateral view xray of the neck, confirmed my suspicion of a retropharyngeal abscess. It turned out that the new bride had been visiting all the relatives, along with her husband. In one such house, one week earlier, she had choked on a piece of mutton. After a few coughs, she apparently became alright and had resumed her tour of relatives. Obviously, a sharp end of the bone had lacerated the pharyngeal wall and then had developed into an abscess, over a few days. Promptly incision and drainage were done. In the interest of preventing any aspiration, this was done without even local lignocaine with the patient in the supine position, with the head lowered a little and the operator standing at the head end. In the ICU, a very powerful suction and a Yaunker suction tip had been at hand. The intensive care sister, having had a lot of experience, was a great help.

In the above instances, we found the ENT surgeon making the initial definitive diagnosis. There are several other situations when he plays a secondary role. One important instance is when he is called to do a tracheostomy. There is an old adage - 'The time to do a tracheostomy is the time you think about it'. But at present, improved designs of endotracheal tubes have arrived and hence the endotracheal tubes may be kept for about two or three weeks. The single difficulty that you are likely have is the necessity to keep the tube patent without getting blocked with dried secretions. Let me warn you: this is not simple. Once a tube gets blocked, you may find very little time to remove and put in a second fresh tube. Hence, if your patient is going to be on assisted ventilation for a prolonged time, consider doing a tracheostomy in the very first few days. When done properly and as an elective procedure with an endotracheal tube in situ, the complications are remarkable low. Ideally, each and every one of us should be able to do a tracheostomy.

The pulmonary tree in the intubated patient, even with due and diligent care, does get flooded with secretions and may get dried up. In such situations, Flexible bronchoscopy, instillation of a little saline and meticulous suction will open up the airway. In the occasional patient, who is difficult to wean away from respirator, the ENT surgeon can help in visualizing the status of the larynx. He can also help by monitoring any leak around the tube; this information helps the internist to decide whether it will be safe to extubate.

Thus, the skill of an ENT surgeon, will be invaluable to the ICU team.