

A Simple, Indirect Rail-Roading Technique of Ryle's Tube Insertion in Anesthetised and Unconscious Patients using Easily Available Gadgets in the Operation Theaters

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Abstract: *Insertion of a Ryle's tube through the nose in anesthetised and paralysed patients is sometimes tricky and complicated. The Ryle's tube refuses to go into oesophagus and stomach and many times curls back and lies in throat or comes out of the throat. Repeated attempts to push the Ryle's tube through the nose and throat can lead to epistaxis and odema of the nose and throat and can lead to bleeding into the oral cavity, thereby obscuring the vision at larynges copy while trying to negotiate and push the Ryle's tube down .We hereby describe a technique which is simple, scientific, non-fussy and easy to practice.*

Keywords: laparoscopic surgeries, intubation, odema, bleeding, rail -roading, Ryle's tube

1. Description of the Technique

Almost all laparotomies whether laparoscopic or open require a Ryle's tube insitu for decompression of stomach and GIT and also to assess the clinical condition of the patient. In laparoscopies the surgeon insists on a Ryle's tube to decompress the bowel and keep it deflated in a distended abdomen for a better visualization of the intraabdominal structures.

After endotracheal intubation, a well lubricated appropriate size endotracheal tube is inserted into the oral cavity and then into the oesophagus either blindly or with the aid of laryngoscope. Instilling some more amount of lignocaine jelly into the throat behind the tongue with the lignocaine jelly tube nozzle or with a 10 ml loaded syringe of lignocaine jelly helps further lubrication process. The endotracheal tube inserted into the oesophagus is kept insitu and asuitable Ryle's tube is inserted through the non-bevel end (proximal end) and passed into the stomach for the appropriate distance. The endotracheal tube is now pulled out and Ryle's tube is fixed at the angle of the mouth like a routine endotracheal tube and used in the usual way like an indwelling Ryle's tube during the surgery.

To convert it into a nasal Ryle's tube, a simple intravenous set and aportion of it is cut with one of its tips being the portion that is inserted into the rubber injection spike near the end of the intravenous set at its junction with i.v. cannula. The cut intravenous set is inserted through the suitable nostril after sufficient lubrication of the nasal pathway and the outer surface of cut intravenous set. A minimum of 30 cms of the cut intravenous set is needed for a purpose of effective rail -roading of the Ryle's tube through the nose. The cut i.v. set after passing through the nose is retrieved from the throat with the aid of laryngoscope and

Magill's forceps or by using the little finger and ring finger to catch the tip of the i.v. set in the throat. The retrieved end of the cut i.v. set brought out of the mouth and is threaded into the lumen of the proximal end of the oral Ryle's tube for a sufficient distance (atleast 5-7 cms). The Ryle's tube and i.v. set junction is sealed on the outer aspect by a small encircling strip of white paper or cloth plaster (adhesive tape) and the outer surface of the plaster is again lubricated in an encircling fashion with a lubricant jelly to make it non sticky in the throat and nasal pathway. The proximal end of the nose cut i.v. set is gently pulled upwards and the Ryle's tube is gently guided up in the throat and nose with the other hand by the anesthetist without any curling and knotting of the Ryle's tube in the oral cavity. After the Ryle's tube is brought out of the nose, it is fixed to the nose like any other Ryle's tube.

2. Discussion

Using the oral tube and putting an endotracheal tube into the oesophagus in an anesthetised patient is not an easy task and carries minimal risk of trauma and bleeding. If the Ryle's tube carries very little chances of curling and roll back as it is introduced through the orally introduced oesophageal endotracheal tube. The best way to access the stomach and oesophagus in an unconscious, anesthetised and paralysed patient is simply to put an endotracheal tube in the oesophagus under laryngoscopic vision or blindly simply for the reason and logic that there is already an endotracheal tube occupying the trachea and has only possibility of entering the oesophagus.

The idea of using a cut i.v. set to rail-road the Ryle's tube from the oral to the nasal route is simply because of the fact that a cut i.v. set goes through the lumen of the Ryle's tube at its proximal end (oral end) without any difficulty. It is also to

anchor the junction of the Ryle's tube and the cut i.v. set by simply suturing the junction or just by encircling the junction with an encircling adhesive tape. Smearing the outer surface of the adhesive plaster with a lignocaine lubricating jelly minimizes the chances of stickiness during the process of Ryle's tube from the throat through the nose.

The technique overall is quick to practice, carries minimal risk of trauma, odema and bleeding and failure is very rare.

Rail-Roading Technique of Ryle's Tube



Figure 1: Required instruments



Figure 2: Ryle's tube inserted into lumen of oral ET tube

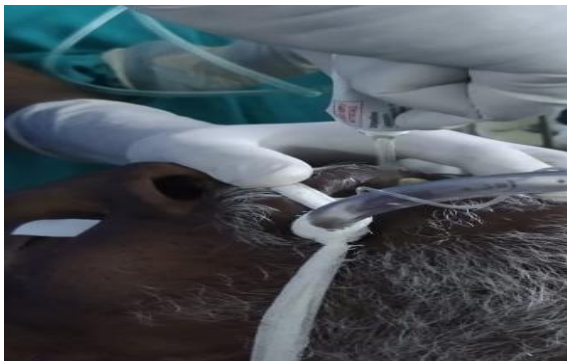


Figure 3: Instilling lignocaine jelly into throat behind the tongue with lignocaine tube nozzle for lubrication process



Figure 4: Well lubricated appropriate sized oral ET tube with Ryle's tube in its lumen inserted into oesophagus with aid of laryngoscope



Figure 5: ET tube pulled out and Ryle's tube is fixed at angle of mouth



Figure 6: The portion of i.v. set that is inserted into rubber injection spike separated



Figure 7: 30 cms of cut i.v. set



Figure 8: Lubrication of nasal pathway with 10 ml loaded syringe of lignocaine jelly

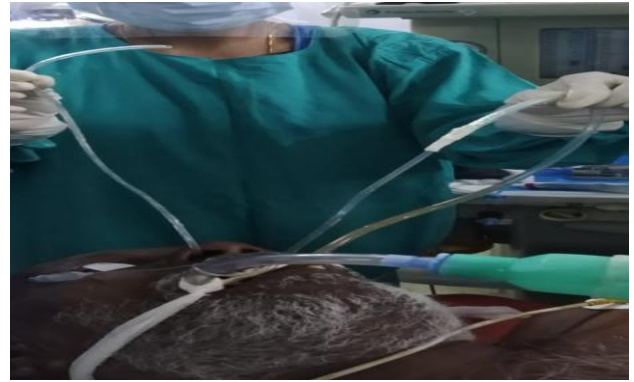


Figure 12: The proximal end of cut i.v. set is gently pulled upwards and Ryle's tube is gently guided up in throat and nose with other hand



Figure 9: The cut i.v. set is retrieved from the throat



Figure 13: Ryle's tube brought out of nose



Figure 10: Retrieved end of cut i.v. set is threaded into lumen of proximal end of oral Ryle's tube for atleast 5-7 cms

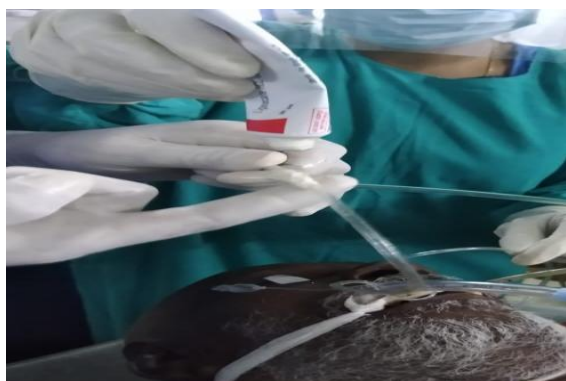


Figure 11: Ryle's tube and i.v. set junction is sealed by small encircling strip adhesive tape and outer surface of plaster is lubricated with lignocaine jelly in encircling fashion

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