

LEWIS, C. B.: *Anaesthesia for Laryngofissure*. Brit. M. J. 1: 162 (Feb. 6) 1943.

"In view of the growing popularity of surgical treatment of carcinoma of the larynx it is important that an adequate anaesthetic technique should be evolved. . . . The suggested method does away with the necessity for a tracheotomy and ensures post-operative haemostasis. . . . Premedication: omnopon $\frac{1}{4}$ gr. and scopolamine $\frac{1}{60}$ gr. 1 hour before operation. Induction: anaesthesia is induced in the normal way with N_2O , O_2 , and trilene, using a Boyle apparatus. When the patient is well into the third stage of anaesthesia a stiff gum-elastic intratracheal catheter, St. Bart's pattern, size 12-14, is passed through the larynx into the trachea under direct vision. Great care is taken to avoid the growth during this manoeuvre. The proximal end of the catheter is now connected to the machine and anaesthesia is maintained with O_2 and trilene. Owing to the small bore of the tube it is usually necessary to supplement the volume of oxygen reaching the lungs by gentle intermittent pressure on the rebreathing bag with the expiratory valve fairly tightly screwed down. . . . As soon as the incision has been made and the larynx opened the space between the catheter and the trachea is thoroughly packed off with narrow gauze, leaving one end emerging from the lower part of the wound. . . . The catheter is now found to lie in the posterior commissure of the larynx and usually interferes very little with the surgical procedure. . . . Anaesthesia is maintained as before with O_2 and trilene, aided by manual pressure on the rebreathing bag at each inspiration. Some of the gas percolates back through the packing in the trachea. As trilene is non-inflammable the

diathermy may be used if necessary.

"Following excision of the growth it is often very difficult to achieve perfect haemostasis. After removal of the tracheal packing and catheter the anaesthetist may play his part by passing a large-bore Magill tube, size 8-9, with inflatable cuff, through the nose and into the trachea under direct vision. When the cuff lies in the larynx it is inflated through the pilot tube until it occupies the lumen of the larynx and presses up against the field of operation. The laryngofissure is now sewn up, and the patient returns to the ward with a clear airway and a guarantee of haemostasis. . . . The intratracheal tube is left in position for 8 hours. During this time the patient is given morphine, and a little 2% decicaine solution is sprayed down the tube from time to time. . . . Eight hours after the operation the laryngeal cuff is deflated. After waiting a few minutes the patient is asked to cough. If blood is coughed up through the tube, then the cuff is re-inflated and the same procedure repeated in 2 hours. If no blood appears, then the tube is gently but firmly withdrawn."

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HUMBY, GRAHAM, AND HAWKSLEY. MARGARET: *A Universal Apparatus for Peroral Intratracheal Anaesthesia: with the Anaesthetist's Point of View*. Brit. M. J. 1: 317-318 (Mar. 13) 1943.

"Intratracheal anaesthesia for oral surgery is unsatisfactory, because there is no apparatus universally applicable to the wide variety of common operations. . . . It was upon 400 hare-lip and cleft-palate cases that the universal apparatus has been evolved. . . . The universal apparatus . . . is made in two sizes, for adults and children re-

spectively, and consists of an intratracheal part and a chin-piece. The intratracheal part . . . consists of a rubber tube pressed firmly on to the serrated end of a curved metal tube. Three sizes and curves of the metal portion are made for children, and they correspond to sizes 00, 0, and 1 Magill nasal tubes. The rubber portions are $2\frac{1}{2}$ in., $2\frac{3}{4}$ in., and 3 in. long respectively, and are used on children from 1 month to 4 years old. The adult intratracheal sizes are made to demand; the chin-piece corresponds to a No. 10 Magill. The intratracheal portion is passed by means of a laryngoscope and united to the chin-piece by a bayonet joint which works through a right-angle ensuring that it cannot be lost down the throat. [In the] chin-piece . . . the inspiratory opening is placed under the chin at an angle to the main tube, promoting easy inspiration. . . . The inspiratory lumen is as large as the largest intratracheal tube. The expiratory opening is guarded by a thin rubber valve. In the adult model the valve can be removed and replaced by a length of rubber tubing or a metal cap should rebreathing or a closed circuit be desired. A curved chin-strap rests below the lower lip to prevent the apparatus from rotating, and this is fixed to the chin by adhesive strapping. . . .

"The standard Boyle's gas-oxygen apparatus . . . has been used with this apparatus. The only expiratory valve employed is that which is attached to the chin-piece. . . . The infant, premedicated only with atropine, is induced on the operating table, the agent of choice being vinyl ether on an open mask. . . . The passing of the tube may present a few difficulties, particularly in infants of 4 weeks or so. A small-size laryngoscope is used, and the tube is passed via the mouth by direct vision. In adults it is not always necessary actually to see the vocal cords when passing the tube if the

epiglottis and oesophagus are clearly in view, but in the infant it is essential to make sure that the tip of the tube passes through the vocal cords. . . . To bring the cords clearly into view the shoulders are first raised by an assistant and then, when the epiglottis is seen, gently replaced on the table. It is advisable not to touch the epiglottis with the laryngoscope, as this may result in immediate spasm of the vocal cords. . . . The infant should be in the third stage of anaesthesia, breathing quietly and easily; if the plane is not deep enough laryngeal spasm will probably be encountered, preventing passage of the tube and necessitating a second attempt. . . . Once the tube is in situ and connected, gas and oxygen and sometimes two or three whiffs of ether only are required. The rate of flow is about half the rate usually necessary with ordinary intubation and expiratory valve. For a child 1 year old 2 litres of N_2O and $\frac{1}{2}$ litre of O_2 per minute are necessary. The anaesthesia lightens rapidly to the second stage with reappearance of the pharyngeal reflex, which the surgeon can evoke when he wishes to assess the adequacy of his operation. As the last stitches are being inserted the gas is turned off, and when the tube is removed the anaesthesia is light enough for the child to cry and cough. . . .

"This apparatus provides an even, light, controlled gas-oxygen anaesthesia. Once the apparatus is in position, a procedure which should take altogether from five to seven minutes, neither anaesthetist nor surgeon has any further worry: the child is round immediately the operation is finished, and there are no postoperative complications due to the anaesthetic. Although originally designed for use in children it is evident that the apparatus will be a valuable addition to the anaesthetist's outfit for all operations on the head and neck in adults."

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