LOW RESISTANCE NASAL ENDOTRACHEAL UNIONS

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The original curved Magill endotracheal tube unions, being smooth, tend to slip out of the tube very easily. Being small they are often rather fiddling to handle in moments of haste and urgency. The alternative right angle unions of Rowbotham are easier to handle and more secure but have a higher resistance to gas flow owing to turbulence produced at the sharp angle. The later Magill modified unions illustrated are much more satisfactory for oral intubation if suction is not needed (a similar type with provision for suction is available) as they provide a smooth gas flow with a wide bore inlet. They are large enough to handle easily and, owing to the ridges, endotracheal tubes do not readily slip off. For nasal intubation, however, they do not lie easily along the nose and form an unnecessary lump, which if pressed upon through the towels tends to deform the nose. I have accordingly had a set of these unions made, which have a curve similar to the original small Magill nasal unions. These have an approximate angle of 60° between the inlet and

"Magill Modified Union"

New Nasal Unions

FIG. 1

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outlet. In consequence they and the rubber connector lie smoothly along the nose without deforming the nostril. The unions have proved very satisfactory in use and are pleasant to handle.

Experiment has shown that at a flow rate of 15 litres per minute these unions add no measurable resistance to that of the corresponding size of endotracheal tube. Comparative tests with Rowbotham and Cobb Unions show that these produce 100–150 per cent increase in the resistance of an endotracheal tube, measured by water manometer.

ACKNOWLEDGMENT

Thanks are due to Mr. Reed of Medical & Industrial Equipment Ltd., 152-154, Oxford Road, Manchester, for his help in producing these unions.

BOOK REVIEW

La Douleur et Les Douleurs. Published under the direction of Professor Th. Alajouanine by Masson et Cie. Price 2400 francs.

This paper backed volume consists of twenty-three essays on the subject of “Pain” by Frenchmen all of whom are distinguished by their interest in and their contributions to the above subject. It is in reality a little library in itself with a very extensive bibliography. It is bound to be of interest to every doctor, and of very special interest to some; and to none more than to the anaesthetist.

The first paper, by Professor Leriche, recognized as a great authority on the subject of pain, poses the question “What is pain?” and his answer, “Hélas, nous ne le savons pas,” is either discouraging or exciting according to the way you take it. After such a beginning it is not surprising to find that opposing views are in the ascendant, unanimity nonexistent. Here are set out the rival theories of Head and Mackenzie on the one hand and those of Leriche and Morley on the other; Von Frey insisting on the specificity of the pain fibres and Goldscheider regarding pain as only the intensification of any peripheral stimulus.

There is much of interest in each one of the papers but for the busy anaesthetist the longest, that on “Les douleurs viscérales,” is likely to absorb most attention. Here the reader will find at the end of the chapter a table showing a list of the abdominal organs and the spinal roots by which their pain-conveying fibres attain the central nervous system and the paths by which these fibres have travelled. Originally the autonomic system was supposed to contain only motor and secretory fibres. This contention can no longer be held. The distinction between fibres belonging to the c.n.s. and those of the autonomic n.s. rests on the position of their cell stations; fibres of the former have their cell stations in the cerebrospinal axis, the latter have theirs in the ganglia. Section and degeneration experiments show that fibres coming from the wall of the bowel have their cell stations in the posterior root ganglion. Clearly then they belong to the somatic system and not the autonomic. It is true that they run in the sympathetic pathways but “Les fibres sensitives viscérales n’appartiennent pas au système sympathique; elles ne font qu’en emprunter les voies pour rejoindre les racines postérieures.” So somatic fibres carry the nerve impulses that lead to pain from the viscus affected (visceral pain proper), from the neighbouring wall (parietal pain), and from the distant sensory area (referred or projected pain). Professor F. Lhermitte has no doubt about this latter, which Mackenzie called the viscerosensory reflex, but he does not accept Mackenzie’s explanation. Instead he suggests that the phenomenon is better explained by the three processes of facilitation, convergence and summation.

There is a short chapter on morphia that will have a special interest for anaesthetists, but indeed there is much to be learnt from every chapter. Perhaps two or three are less absorbing and somewhat difficult to read, and it is just possible that the tired reader may find that he has been allowing his attention to wander.

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