

In considering the causes that lead to such frightful mortality and the unsatisfactory results obtained from any method of treatment yet devised, the important fact is often lost sight of that the word croup means a good deal more than obstruction in the larynx. Did it only mean the latter, there would be no room for any difference of opinion as to the best method of treating it, because under those circumstances intubation in skillful hands would have no failures.

Those familiar with the pathology of this disease know that the most frequent cause of death, after the laryngeal stenosis has been overcome by means of intubation or tracheotomy, is the extension of the disease to the bronchial tubes, where surgery can not reach it; and that there are several other causes, such as pneumonia, systemic poisoning, paralysis, especially of the heart, and nephritis, each of which contributes its quota toward swelling the mortality of this terrible disease. It goes without saying that the results of any method of treatment in a disease having so many complications, the fatality of which is so great under all circumstances, and which varies so widely in different epidemics, must be obtained from a large number of cases in order to be of any value. Not even are the results of intubation obtained from a large number of cases collected from numerous operators, each contributing a few, of much value, because the ability to intubate without immediate danger to life can not be acquired by the amount of practice derived from a few cases.

It is therefore to large individual experience alone that we must appeal for conclusive evidence as to the value of intubation, not only as a means of saving life, but also as to its more important function as a means of euthanasia in the most excruciating of all forms of human suffering—that of slow strangulation.

There are at present a sufficient number of operators, both in this country and Europe, who possess this kind of experience, and they speak on this subject with no uncertain voice. Among the American intubationists who have had large individual experience and whose opinions on this question are well known, I may mention Waxham, formerly of Chicago, now of Denver; Brown, Northrup, Huber, Caillé, Lester, Stanton, and the author, of New York; McNaughton, of Brooklyn, Hailes, of Albany; Eichberg, of Cincinnati; Rich-

ardson and Henrotin, of Chicago; Shimwell and Montgomery, of Philadelphia; Cheatham and Pusey, of Louisville; von Glahn, of Cleveland; Pyne, of Yonkers; and Graham, of Toronto. All of these and many others whose names I have not at hand have had in the immediate neighborhood of or exceeding a hundred cases. Several of the operators mentioned can count their cases by hundreds, and four names could be selected whose aggregate number of cases now exceeds two thousand.

The latest intubation statistics are those by Dr. McNaughton and Dr. Maddern, of Brooklyn, who have collected from 242 operators in various parts of this country and Canada 5,546 cases, with 1,691 recoveries, or 30.5 per cent. (*Brooklyn Medical Journal*, August, 1893). Notwithstanding that it is only within the last three or four years that intubation has been adopted to any considerable extent in Europe, some valuable statistics have already been accumulated. And these statistics are valuable not only because they are the result of large individual experiences, but also from the fact that they have been obtained exclusively from children's hospitals in which tracheotomy had hitherto been the only surgical measure available in the treatment of croup.

Professor Ranke, of Munich, as the result of a collective investigation on the subject of intubation in Germany, reports 1,324 cases of primary laryngeal diphtheria intubated, with 516 recoveries, and 121 cases secondary to measles, scarlet fever, pneumonia, etc., with 27 recoveries—a total of 1,445 cases, with 553 recoveries, or thirty-eight per cent. (*Münchener medicinische Wochenschrift*, No. 44, 1893). Of this number, Ganghofner, of Prague, contributed 498 cases, with 213 recoveries, 42.7 per cent.; Ranke, of Munich, 368 cases, with 128 recoveries, 34.7 per cent.; von Muvalt, of Zurich, 106 cases and 38 recoveries, 35.8 per cent.; Jabonowski, of Cracow, 165 cases and 73 recoveries, 44.2 per cent.; and Unterholzner, of Vienna, 164 cases and 55 recoveries, 35.5 per cent.

Secondary tracheotomy was resorted to in 250 of the cases, with only 20 recoveries, or about seven per cent.

In regard to the value of these statistics Ranke speaks as follows: "This number proves for itself that O'Dwyer's intubation, which at first and until lately was severely fought on all sides, has in the