

ous inhalation agents when properly administered." 12 references.

J. C. M. C.

BEECHER, H. K., AND ADAMS, RALPH: *Ether Anesthesia in the Presence of Pulmonary Tuberculosis*. J. A. M. A. 118: 1204-1209 (Apr. 4) 1942.

"Great and sometimes dangerous efforts are made to avoid the use of ether anesthesia when surgery must be carried out on patients who happen to be suffering from tuberculosis; accordingly, it is important to examine the basis for the prejudice against the use of ether for tuberculous patients. As will be observed, this prejudice does not appear to be established on a secure foundation. We have therefore studied the results of using ether in operations on a carefully followed series of patients and have compared our results with those from other clinics. Our wish to give ether an adequate trial was based on extensive observations, made in many general surgery clinics as well as our own, that ether is extraordinarily well tolerated by the cachectic patient and by the patient whose respiratory and circulatory systems may be grossly impaired. . . . While opinions are divided at present concerning the advisability of using ether in operations on tuberculous patients, . . . there have been more to oppose than to approve or condone its use. . . . While statements based on opinion appear to have served as the basis for the numerous strictures against ether in the tuberculous, so many men have been of this view that one cannot lightly dismiss their statements. A point worth noting here is that nearly all, if not all, of the statements referred to were based on open cone anesthesia, not modern, closed anesthesia. . . . We believed that ether employed in modern closed anesthesia with the carbon dioxide absorption technic is worthy

of trial and reevaluation in tuberculosis, for, as pointed out earlier, ether has many desirable qualities for the very sick. Ether administered in a closed system can hardly be compared with the agent when it is used by the open drop method. Accordingly, we have carefully studied for a period of more than five years a series of patients who received 'closed' ether anesthesia, notwithstanding their pulmonary tuberculosis. Our major purpose in this paper is to report that experience. . . .

"We began to use ether routinely as the anesthesia of choice for thoracoplasty in patients with pulmonary tuberculosis in October 1935. . . . While the majority of the patients came from the Rutland Sanatorium, a number of other sanatoriums participated. Since more precise follow-up information was available concerning the Rutland patients, we decided to limit our study to this group: 147 patients who underwent two hundred and sixty thoracoplasties under ether anesthesia. . . . The routine premedication consists of morphine sulfate $\frac{1}{6}$ grain (0.01 Gm.) and atropine $\frac{1}{100}$ grain (0.00065 Gm.) administered subcutaneously one-half hour before operation. Frequently, soluble pentobarbital $1\frac{1}{2}$ grains (0.1 Gm.) is given by mouth one hour before operation. Patients are placed in position for operation before anesthesia is induced. During induction, care is taken to prevent straining and coughing. The choice of operating time is the afternoon, following elimination of the morning sputum. Anesthesia is administered by means of a closed system apparatus with carbon dioxide absorption (never open cone for these patients). Following a brief nitrous oxide-oxygen induction, with care to avoid anoxemia, ether anesthesia is administered with a high percentage of oxygen. Although intratracheal

tubes are used with great frequency in this hospital and are always used in open pleura operations, we rarely use them in the presence of pulmonary tuberculosis. They are used in this case only when the sputum is unusually abundant. We are reluctant to use them in most cases of tuberculosis, for possibly new loci of tuberculous infection might develop in areas of slight trauma to the airway. During operation the patient is maintained in a slight Trendelenburg position. With termination of the study reported here, at the end of December 1940, all patients will have been followed for at least one year after their last anesthesia and operation. It would seem reasonable to suppose that damage possibly caused by the anesthesia would become evident within that time. . . .

"Our data include all cases, favorable and unfavorable. The surgical teams were constantly changing, the surgeons varying from members of the house staff to the chief of service. Notwithstanding these facts, our results for more than five years are such as to compare favorably with those from other clinics where ether is used either not at all or rarely. In our opinion, the anesthetic agent is not important in these cases as long as it permits the use of a plentiful supply of oxygen and allows the surgeon to carry out a deliberate, unhampered and unhurried operation, provided the patient is not jeopardized by toxic action of the anesthetic. It is important to choose an anesthetic agent which depresses vagal activity when thoracic surgery is contemplated. Ether excels other agents studied in this regard. While not enough data have been collected to permit final statement, several of the newer anesthetic agents appear to have a death rate in general surgery two or three times higher than in the case with ether. The excellent tolerance of the very sick

patient for ether anesthesia as well as the low death rate attributable to this agent is well established. After five years of study we can see no reason to abandon the use of ether in operations on the tuberculous patient because of the presence of tuberculosis." 18 references.

J. C. M. C.

GILLESPIE, N. A.: *Surgeon and Anesthetist*. J. A. M. A. 118: 787-790 (Mar. 7) 1942.

"Operative surgery, as we know it today, is the product of the last seventy-four years, for it was conceived by the publication of Lister's work in 1867. The surgeon himself, however, had long since won the respect and esteem of his colleagues to a degree which would have been inconceivable in the days of 'physician apothecaries' and 'barber surgeons.' That he did so was probably due to the fact that the early surgeon was learned in anatomy and skilled in clinical observation. . . . In anesthesia, unfortunately, the reverse has been true. . . . With the exception of a few such men as Snow and Hewitt the profession saw in anesthesia merely a technical advance ordained for the convenience of the surgeon. . . . Of recent years, however, there has been a renaissance of interest in and original work on the subject of anesthesia which has brought forth greater advances in the last thirty years than had occurred in the previous seventy. . . . Too much importance has been attached to the anesthetic agent and too little to the hands which use it and their degree of skill. . . . Surgeons, of all men, should have reason to know that a balanced judgment is more important than a method or a drug. . . . The anesthetist stands ready and willing to help the surgeon." 5 references.

J. C. M. C.