A CASE OF HEMIPLEGIA OCCURRING IMMEDIATELY AFTER TONSILLECTOMY UNDER GENERAL ANESTHESIA.*

DR. WILLIAM A. SCRUTON, New York City.

The subject, who was a patient in the Manhattan Eye, Ear and Throat Hospital, is a female child, 11 years old. Inquiry into her past history develops no etiological factor bearing on the complication of tonsillectomy about to be considered. Her appearance on admission to the hospital was that of one in perfect health. The result of the anesthetist's examination of the chest was negative.

Tonsillectomy was performed July 10, 1915, according to the method recommended by Sluder with a modified Mackenzie tonsillotome. In this instance the technique was not observed to a nicety and a small portion of the gland remained at the base or lingual extremity of the left fossa. Removal of this portion was effected by means of a grasping forceps and a Mosely snare.

The exact time of the onset of the hemiplegia (left side) is in doubt. The first record of the condition is at six o'clock on the morning of July 11, when the child was requested by the nurse to leave bed and was found unable to move. The patient was reasonably certain that the paralysis existed when she recovered from the anesthetic.

The temperature chart shows a tracing which made a gradual rise to 101.8° forty-eight hours following operation; the return to normal was also gradual and extended over a number of days. It is recorded on the chart that during the early hours of the second day after operation the patient was restless and noisy. On a few occasions, complaint of slight headache is recorded.

Recovery from the paralysis was definitely under way within seventy-two hours. It began in the leg and shortly afterwards was manifest in the arm. In about two weeks she began to try locomotion about the ward and on July 28th, when discharged, walked from the hospital without assistance.

I have not consulted the literature on the subject, but in the nine years that I have been connected with the Manhattan Eye, Ear and Throat Hospital, where several thousand tonsil-

*Read before the New York Academy of Medicine, Section on Laryngology and Rhinology, March 22, 1916.

lectomies are performed each year, there has been no similar case.¹

In conclusion, I will endeavor to offer solution of two problems which naturally come to mind in connection with this case; namely, "What happened?" and "Why did it happen?"

The paralytic symptoms manifested must have been due to either brain pressure or brain softening; with this as a premise, a differential diagnosis is required between cerebral hemorrhage, embolus and thrombosis. The question of thrombosis may be eliminated at once because there are always prodromal signs and furthermore it does not occur at the age of this patient. Hemorrhage might have been caused by straining and excitement at the time of taking ether, or by the strain of the vomiting of ether recovery; those who had this phase of the case under observation, agree that these factors were not prominent. Regarding embolus there is a definite factor of causation in the opening of the vessels at operation. Considering the symptoms:—as against hemorrhage, there was no coma, which surely would have been present if sufficient pressure had developed to cause complete hemiplegia; there was no immediate subnormal temperature followed by a slow rise to 102°; there was rapid recovery of function. The preponderance of evidence, to my mind, points indubitably to a diagnosis of embolism.

There is a certain circumstance concerning the operation in this case which theoretically may account for the subsequent history. It was performed under my direction by a man seeking instruction and consumed about twenty-five minutes. The piece of gland left in place by the tonsillotome was fished for repeatedly and the grasping instrument regularly pulled away from the friable material; there was consequently considerable traumatism and an unusual amount of vigorous sponging in the fossa which may have caused dislodgment and discharge of clot into the circulation.

Terminal condition found at examination about six and a half months following operation: the leg seems to have entirely recovered: a condition of athetosis exists in the foot; the arm has recovered control of all movement but the execution is slow; athetosis is established in the hand; the face still shows paralysis at the angle of the mouth. The picture now presented, is substantially permanent; a truly tragic condition resulting from the, generally so-called, insignificant tonsil operation.

1. A similar case occurring in the New York Eye and Ear Infirmary was reported by Dr. Gracey in the January, 1917, issue of THE LARYNGOSCOPE.—ED.

EDEMA OF THE GLOTTIS FOLLOWING TONSILLECTOMY.

DR. E. LEE MYERS, St. Louis.

The occasion for my reporting this case is the rarity of edema of the glottis as a complication of tonsil operations. So far as I can ascertain the literature on this subject is very meager. Dr. L. W. Dean (*THE LARYNGOSCOPE*, July, 1910), and Dr. C. W. Richardson (*THE LARYNGOSCOPE*, July, 1913), both refer to Ricordeau (*These de Paris*, 1886), who cites Bauchacourt and Martin (*Gazette des Hopitaux*, 1868, p. 433). It is thus seen that what reference there is to this complication is rather indirect and mentioned as a possibility and not as one encountered by recent writers. Ricordeau, in describing accidents following tonsillectomy, called attention to mild infections with much edema which may prove fatal. He quotes Bauchacourt as reporting a case of this kind, and Martin who published two similar cases, the patient having died of edema of the glottis. He cites two cases of his own of edema of the glottis following tonsillotomy with a fatal issue in one of the cases.

The case I wish to report is as follows: The patient, a physician, complained of fullness in both ears. The tonsils were buried, the right one having been clipped a few years previously. Upon manipulation some caseous material could be expressed. No evidence of general infection from the tonsillar condition.

Family history: Father died at 80 of cardiac incompenation; mother at 79. The doctor comes of a family of very muscular, robust men. No familial constitutional diseases.

Personal history: Age 35. Complains of psuedoanginal pains. Has had typhoid; no other diseases. Blood pressure 126. Patient of powerful physique, of plethoric type and weighs 204 pounds.

Data of first operation: The left tonsil was removed at one sitting by dissection, using one per cent quinin and urea hydrochlorid as the infiltration. A slight oozing hemorrhage was the only complication which no attempt was made to control because of the patient's wish to be bled somewhat to reduce his full-bloodedness.

Data of second operation: The same preparation was employed for local anesthetic, and in the same percentage, as in the first operation. No difficulty in separating the anterior pillar from the tonsil; the posterior pillar was more adherent. Two or three tags

were removed with the tonsil punch. Slight bleeding from an arteriole was stopped by torsion. No hemorrhage and the patient was taken home.

At midnight I was called hurriedly because of the patient's shortness of breath. His face was slightly puffed and anxious. There was no cyanosis. Laryngoscopic examination showed a turban-shaped epiglottis, with infiltration of the glosso-epiglottidean folds. What little could be seen of the cords showed that they were not involved.

Treatment: Ice was given to suck and this was kept up for forty-eight hours. Ice was packed around the throat for the same length of time. The throat was sprayed with adrenalin for the first twelve hours; after that a one per cent cocain in adrenalin was used. The patient had the characteristic apprehension met with in obstructive conditions of the larynx and it was necessary for me to remain with him continuously if for no other reason than to relieve his anxiety. No tubing or tracheotomy was necessary.

Conclusions: I do not believe that the quinin and urea hydrochlorid can be held responsible for the edema. I have done numerous tonsil dissections with the various local anesthetics and have noticed that in the buried variety of tonsils with adhesions there is quite a little edema of the uvula and the posterior pillar, especially when the patient is rather full-blooded. Anemic and under-nourished men do not seem to react so much to the operation.

There was no fever in this case which excludes anything but a very low-grade infection; but as the use of adrenalin and ice caused the condition to disappear, I believe that the edema was due to the injury to the soft parts and the patient's resisting power which induced a larger supply of lymph to the parts than could be readily carried off. Edema of the soft parts due to the local infiltration is not amenable to adrenalin as I have noticed on numerous occasions when I have prescribed astringents and adrenalin to reduce edema of the uvula frequently seen after a tonsil dissection.

3904 Laclede Avenue.