THE TREATMENT OF ABSCESS OF THE SEPTUM WITH SPECIAL REFERENCE TO THE PREVENTION OF SUBSEQUENT DEFORMITIES.*

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The treatment of an abscess of the septum may be considered under two heads: First, the evacuation of the pus for the relief of the immediate symptoms, such as pain and nasal obstruction. Secondly, the prevention of subsequent deformities. These vary considerably and depend upon the destruction of part or a whole of the cartilaginous septum, the development of new connective tissue between the two layers of muco-perichondrium over the site of the cartilaginous septum and the sinking in of the soft parts over the tip of the nose, owing to lack of proper support.

On looking up the literature of abscess of septum, as contained in the text books, written by American and foreign authors, the reader will find much valuable advice as to treatment under the first heading. The importance of an early evacuation of the pus is stated, and many valuable suggestions are given regarding the subject of drainage to prevent re-accumulation of pus. No writer gives explicit directions, which, if followed, will prevent or minimize the subsequent deformities.

It is hardly necessary to remind the Fellows of this Society that the cartilage of the septum receives its nutrition from the mucous membrane on either side of it, and that, therefore, this portion of the nasal mucous membrane acts as a perichondrium to the cartilage. It has surprised us to note how quickly the cartilage melts away and disappears when pus is formed on each side of the septum between it and the mucous membrane. In one case a male, aged 27, who was first seen six days after a blow on the nose, a bilateral swelling was found just within the vestibule of the nose and after evacuating about two drachms of pus, a perforation of the cartilage of the septum three-quarters of an inch in diameter was detected. In dispensary practice it is not unusual for a patient to present himself with an abscess of the septum anywhere from one to three weeks following the traumatism, and if the abscess is bilateral, there is always a large loss of the cartilaginous septum. If such cases are treated similarly to abscesses in other parts of the body, namely, by incision, evacuation of the pus, washing the cavity with an antiseptic solution and drainage, deformity in some degree will result. Tamponing the anterior part of the nasal cavities opposite the cartilaginous septum, as advocated by some authors, and formerly practiced by the writer, was frequently followed by considerable deformity. On studying the cases we noticed that the septum was unusually thick over the site of the abscess, due to a separation of the two

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layers of muco-perichondrium. The intervening space was filled in with connective tissue. This broadening of the septum interfered with the respiratory functions of the nose in one or both nasal cavities, and in time a greater or less depression or flattening of the exterior of the nose took place. Believing that this thickening and depression was due to the uneven pressure of the gauze packing, it occurred to me to employ the Simpson tampon to keep the two layers of muco-perichondrium in close juxtaposition during healing and at the same time to help bear the weight of the superimposed soft parts until the newly formed connective tissue was of sufficient density to support them unaided.

An incision is made into the abscess cavity on that side which seems the more soft or fluctuating. The incision is begun opposite the middle of the columna, and as far anterior as possible. It is carried with one sweep down to the floor of the nose. The abscess cavity is irrigated with carbolic solution, 1-100, the head being inclined forward so that the fluid will come out of the anterior nares and not flow through the nasal cavity. Both nasal cavities are then sprayed with a 4 per cent solution of cocain, to which a few drops of adrenalin chloride, 1-1000, have been added.

After waiting five minutes, a cotton-wound applicator is passed into each nasal cavity, back of the posterior border of the abscess cavity, and together they are drawn forward, making pressure against the septum, thus stripping the abscess cavity of any remaining secretion. The nasal cavities are next irrigated with Dobell's solution and a Simpson tampon inserted into each naris. In the case of children and in some adults it may be necessary to trim the tampon to fit the nasal cavity. The tampon inserted into the side on which the incision was made should have its anterior end just posterior to the line of incision into the abscess. If a little antiseptic spray be injected into each naris the tampon will immediately swell and the operator may be sure that they will retain their place. A small piece of gauze may be inserted into the abscess cavity for 24 or 48 hours, if desired, but we have found that if the incision were a good, generous one, say from $\frac{3}{4}$ of an inch to 1 inch in length, gauze drainage is unnecessary. Tampons must be removed every 24 hours and fresh ones inserted for about a week. The nasal cavity is sprayed with cocain and adrenalin each time and also irrigated with an antiseptic solution. At the end of a week some form of hollow nasal splint may be substituted for the Simpson tampons, for while wearing the tampon the patient must necessarily be a mouth-breather. The splint which we have most frequently employed is the non-perforated Kyle splint on account of the ease with which it can be moulded to the peculiarities of each case. It is advisable to wear the splints for three weeks, at the end of which the connective tissue will be well organized, the septum of normal thickness, and having a rigidity that very closely approximates that of the normal cartilaginous septum.