

nized. Now that the army of unsexed women has reached such formidable proportions, there are probably few practitioners who have not witnessed scenes of domestic infelicity productive of more misery than any amount of physical suffering.

It is, we believe, by a careful study of the remote sequelæ of these operations, by a consideration of the many unsuccessful cases, by a knowledge of the effect of such mutilation upon domestic relations, that the operator will be guided in pursuing a wise and temperate course.—*University Medical Magazine.*

SUBMUCOUS RESTORATION OF CARTILAGE IN DEVIATIONS OF THE SEPTUM; A NEW OPERATION.

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There are cases in which simple division of the nasal septum, with the use of pins to hold the divided partition properly in place, is not efficacious, because the cartilage contains too much tissue to be held in a straight line after its abnormal curves have been corrected. It is easily understood that, since the shortest distance between two points is a straight line, a curve or bent septum forced into a straight line by dilation of the nostril or by incision, has a tendency to reproduce the curvature within a few weeks after the operation. In such cases it is usually necessary to remove a portion of the septal cartilage, if permanence is to be given to the straight position obtained by the operation. This is sometimes done by excision of a portion of the septum by means of a nasal punch or a knife, thus leaving an opening between the two nares. The operation which I describe, and which is a resection of the cartilage beneath the mucous membrane, makes no opening between the two nares, and yet gets rid of the surplus septal tissue.

The operation should be commenced by dilation of the occluded nostril with the finger or a pair of dilating forceps; the mucous membrane covering the septum of the occluded side is then incised by means of a blunt tenotome. The incision should be a long curved one, with the convexity towards the floor of the nostril, and should be commenced as far back as is necessary to make a flap large enough to uncover the curved piece of cartilage. A flat, dull instrument is then slipped under the mucous membrane and used to separate this membrane from the triangular cartilage and vomer. A finger in the opposite nostril gives rigidity to the septum during the manipulations. After the large flap of mucous membrane has been elevated, a blunt-pointed tenotome is thrust under the mucous membrane, which hangs down like a curtain, and is used to cut out an elliptical portion

of the cartilage corresponding in size with the angle or curve in the deviated septum that the surgeon desires to remove. During this stage of the operation the little finger of the other hand in the opposite nostril is used to prevent perforation of the mucous membrane in the nostril opposite that of the operation. A blunt instrument is then thrust through the incision in the cartilage, and used to separate the portion of cartilage, which is to be taken out, from its mucous membrane on the side opposite the occluded nostril. The elliptical piece to be resected is then lifted out with forceps and the large flap of mucous membrane permitted to drop in place like a curtain. One or two sutures of catgut may then be put in the mucous membrane at the anterior portion of the wound in order to hold the flap in place.

The operation is readily performed and seems to be a distinct improvement in nasal surgery. So far as I know it is novel.

My observations have led me to believe that a great many cases of crooked nose or occluded nares are not due to fracture or congenital deformity, but to interstitial growth of the septal cartilage. It is impossible to increase the area of a partition situated between fixed borders without causing the partition to assume a curve. The triangular cartilage cannot extend upward, downward, or backward, because of its margins in these directions being fixed, hence, when it increases in area by abnormal growth it assumes curves and distorts the anterior portion of the nose.

I have recently operated upon a case in which the crookedness of the nose was very marked, and had been increasing within the last few years. In this case it was quite evident that the deformity depended upon a double curve of the septal cartilage, which was apparently due to abnormal interstitial growth.

Submucous resection of the cartilage is, it seems to me, a good method for relieving many cases of nasal deformity. The removal of angular or curved portions of cartilage without cutting away the mucous tissue is an operation giving rise to no great hemorrhage, although, of course, the bleeding is free.

I show to night an elliptical section of cartilage the result of an operation done by this method. In this case, as the members will see I cut out a portion of the bone as well as of the cartilage, and I subsequently removed another small piece of bone at the back part of the nares, by using a saw pushed under the mucous flap. The small portion of bone attached to the elliptical strip in the specimen was removed by the incisions made with the tenotome. The anterior portion of the bone of the septum is so thin that it is easily cut through with a tenotome.

The relief of nasal obstruction was immediate and very satisfactory in this case.—*Weekly Med. Review*, St. Louis.