

left of the pomum Adami. The left vocal cord, on laryngoscopic examination, showed marked redness and swelling, and numerous sub-mucous hæmorrhages; while the ventricular band of the same side was only slightly red and swollen, as was also the left arytaenoid region. The left vocal cord remained fixed near the mid-line on phonation and respiration. The right vocal cord was also slightly red and swollen. On the following day the swelling had greatly increased, and the left arytaenoid region and sinus pyriformis were involved in a large deep-red tumour. Two days later the swelling was much less and the left vocal cord was again movable. Recovery was complete nineteen days after the accident.

The age of the patient in this case was such as to suggest the possibility of a fracture, but against this were the absence of crepitation, abnormal mobility, and subcutaneous emphysema. Although a little fluid blood was seen in the left ventricle of Morgagni, the complete absence of hæmoptysis indicated the absence of any considerable tearing of the mucous membrane.

The treatment in such cases should consist of complete rest of the voice, cold fluid diet, ice compresses, and the sucking of ice. Supra-renal preparations alone, or in combination with cocaine or novocain, may be employed to reduce the swelling, but, owing to the nature of the latter, will probably be of small service. Scarification or tracheotomy may be required in rare cases.

Thomas Guthrie.

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Bryant, W. Sohier.—*The Conservation of Hearing in Operations on the Mastoid.* "Boston Med. and Surg. Journ.," March 7, 1907.

The amount of residual hearing following mastoid operations depends on (1) the integrity of the sound-perceiving mechanism; (2) the amount of sound-conducting mechanism left by disease; (3) the functional efficacy of this conducting mechanism; (4) the amount of conducting mechanism remaining after operation; (5) the functional efficacy of the conducting mechanism remaining after operation. Bryant discusses the fourth and fifth conditions. He thinks that the ossicles should, if possible, be preserved in position without dislocation, and considers that, in the disposal of the tympanic structures, the following five rules should guide the surgeon: (1) The tympanum should be restored to its normal condition, with nothing taken away, if the malleus is left. (2) The incus should be removed if the malleus is out, because the former acts as a damper to the stapes. (3) The posterior attachments of the membrane should be preserved after loss of malleus and incus, because this part of the membrane can be trained on to the stapes and act as a sound transmitter for it. (4) When malleus and incus are gone, the tympanum should be kept open and the anterior part of the membrane used to shut off the Eustachian tube. (5) The tympanum should be kept open and the major ossicles removed, if the stapes is out, to allow free access of sound waves to the labyrinth. The author further insists upon the shortening of tympanic convalescence as preserving of residual hearing. Four cases are cited, and the paper concludes with the remark that the maximum post-operative hearing is obtained by judicious preservation of the sound-conducting mechanism, and by the most rapid possible convalescence of the middle ear.

Macleod Yearsley.