THE SURGERY OF THE NOSE AND ACCESSORY CAVITIES.

An Abstract of the Bradshaw Lecture delivered at the Royal College of Surgeons of England on December 1st, 1892.

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THE diseases of the nose have in the last decade obtained an amount of attention on the part of certain members of the profession which their importance seems scarcely to justify. The literature of the subject has grown apace, but I say advisedly that the amount of progress bears no proportion to the amount of literary activity displayed since the date of the well-known paper by Dr. Meyer, of Copenhagen, on Adenoid Growths in the Naso-pharyngeal Cavity, communicated in 1869 to the Royal Medical and Chirurgical Society by the late Mr. John Marshall. I do not propose to revive the old controversy of "General versus Special," which ran its tedious length some years ago without any particular result; I have, however, to thank the President of the British Laryngological and Rhinological Association for a phrase which he was reported in a daily paper to have used in an inaugural address, in which he spoke slightly of the "all-sufficient general surgeon," as compared with what I would venture to term the "self-sufficient special surgeon." I hope before the close of this lecture to show that the general surgeon is, in the matter of diseases of the nose, "all-sufficient," and that he owes little or nothing to the specialist. Let me take, for example, the treatment of fracture and displacement of the nasal bones and septum. The name of William Adams is at once suggested by the flat-bladed forceps and vulcanite wedges which he successfully introduced, and which, in his own hands and those of many other general surgeons, have proved most efficient. So, also, with that terrible deformity which used to be called "lipoma nasi," consisting in hypertrophy of the skin of the nose, with blocking and distension of the sebaceous follicles. One need only refer to the standard works of Liston and Fergusson to find graphic portraits of such cases, which were treated then, as now, by the old process of paring away the hypertrophied mass and inducing healthy granulation.

STRAIGHT AND CROOKED NOSES.

Given a patient with the nose well cocaineised, it is by no means difficult to light up effectually at least the anterior part of the nasal cavity, provided the septum be median and straight; and then comes the important question, What is the proportion of straight noses, to say nothing of deviated septa? Robertson, an American surgeon, in an examination of 240 cases, found abnormalities of the nose in 217; and Bosworth says (p. 292): "It is worthy of note that deformities of the external nose are of far more frequent occurrence than is generally supposed, for if we examine a given number of individuals with a plumb line we will find the tip of the nasal organ deviating from the median line of the face in quite a large proportion of cases." As regards the septum, Theile found that in 117 skulls the septum was unsymmetrical in 88, or 73 per cent.; Semeleder, in 49 crania, met with deviation in 79 per cent.; and Zuckerkandl, in 370 skulls, met with deviation of the septum in 140 instances. The late Sir Morell Mackenzie investigated the question by laboriously examining the collection of skulls in the museum of this College. The total number of crania examined was 3,102, but of these only 2,152 had the bony septum in sufficient preservation to be tested, and these showed a more or less unsymmetrical position of the septum in 1,657 cases, or 76.9 per cent. It must be remembered that these figures have reference only to the bony septum, and that deviations of the cartilaginous part probably occurred in a large proportion of those cases in which the bone itself was straight.¹

It is rare to find a septum perfectly straight, and yet how much rarer is it to find anything approaching a "spur" or outgrowth which could in any way interfere with nasal respiration, still less affect the Eustachian tube? Yet from the publications of certain nasal specialists one gathers that out-

growths from the septum which require removal with the saw or electric wire are now commonly met with, and that in fact no man's, still more no woman's, nose can be considered sound until a "free run" has been established on both sides of the median line. Bosworth (p. 292) goes so far as to say: "I regard septal deformities as responsible in the large majority of cases for the whole train of symptoms, direct and indirect, which are embraced under the term chronic hypertrophic rhinitis."

Some months ago a Fellow of this College was good enough to forward to me a syllabus of a paper he proposed to read before the Rhinological Association, and I will now read it as illustrative of modern progress. Under the section "Causation of Deviations of the Nasal Septum" I find fifteen headings, as follows:—

CAUSATION

1. Hereditary causes.
2. Congenital causes.
3. Syphilitic causes.
4. Rickets.
5. Blowing nose with same hand.
6. Habitual sleeping on one side.
7. Tendency to vertical overgrowths of septum.
8. Primary laws of organisation at fault.
9. Action of astringents.
10. Habit of putting finger in nose.
11. Overgrowth of septum.
12. Traumatism: (a) *In utero*; (b) early; (c) recent.
13. Lesions at root, trunk, or terminations of facial nerve (affecting muscles).
14. Unilateral obstructions of nostril.
15. Swellings or growths directly pressing on septum.

If these things are so, our children's children will surely be in a "parlous state." Every mother of a family knows how difficult it is to get children to blow their noses at all, and if it is essential that from infancy we should learn to blow our noses with the right and left hands alternately, I fear few of us will attain unto perfection. If the lecturer had insisted upon the importance of habitually closing one nostril while clearing the other with the whole force of the breath, or if he had pointed out the fact that infants' nostrils can often be cleared by hot sponging, or, if need be, by the nurse blowing the mucus into the pharynx by applying her mouth to the baby's nose, there would have been some practical outcome from his teaching. As it is, I hope that the golden time will be long distant when want of attention, now dignified by the term "aprosesia," in schoolboys and others, will be regarded as disease of a physical rather than of a moral nature. But this tendency to magnify slight deviations from the normal into matters of vital importance has its serious aspect. A year or two ago a medical man brought to me a young relative who had undergone treatment by a nose specialist, who had repeatedly drilled an exostosis of the septum, with the result that one morning the drill was broken and remained in the cavity. I made a most careful examination of the nose with a brilliant light, and of the posterior nares with the forefinger, but I failed to discover either the exostosis or the drill, which I advised should be left *in situ*, and no harm eventuated. One can only suppose that the basilar process or body of the sphenoid bone was fortunately thick enough to withstand the vigorous attacks of the operator. But such innocent results do not always follow over-activity in the nasal cavities, which, it must be remembered, are separated from the cranium by a very thin cribriform plate of bone.

TREATMENT OF ADENOID VEGETATIONS.

The clinical facts narrated by Dr. Meyer in 1869 have been abundantly tested by practitioners in all countries, and if the treatment recommended has been slightly modified its principles remain as laid down by him. As regards diagnosis the introduction of the forefinger into the naso-pharynx is at once the simplest and best method, and even with children the operator runs no risk of being bitten if he encases his first phalanx in a piece of stout indiarubber tubing. But if it is desired to avoid giving any pain the employment of the nasal douche, as advised by Semon, will at once determine whether the naso-pharynx is obstructed or not. As regards treatment, surgeons have for the most part abandoned the use of instruments introduced through the nose, as recommended by Meyer, for the more direct route of the pharynx. Here the nail of the forefinger forms a satisfactory instrument for the removal of small vegetations, but it may be usefully sup-

¹ Diseases of the Throat and Nose, vol II, p. 433.

plemented by Gottstein's curette when the growths are large. The employment of curved cutting forceps introduced behind the palate is to be deprecated, since the operator has to work in the dark and may unwittingly inflict serious injury upon the pharynx or Eustachian tubes. The danger of portions of growth or blood getting into the air passages is best met by employing local anæsthesia by cocaine in all but severe cases, and, when chloroform is used for these latter, by bringing the patient's head well over the table so that the nose may be the dependent part.

Besides these cases of distinct growth in the naso-pharynx there are doubtless cases of thickening of the mucous membrane of the nasal cavities due to constitutional causes, but these are really unimportant unless sufficiently severe to cause obstruction. When this is the case they may be beneficially treated with the hot galvanic wire, scored on the surface, or thrust into any portion of thickened mucous membrane. The contraction caused by the healing of the scars thus produced and the bracing up of the tissues thus effected tend, no doubt, to reduce the thickening of the mucous and submucous tissues and to bring the parts into a healthier condition.

I would venture to quote here from Dr. McBride's recent work on *Diseases of the Nose, Throat, and Ear* a passage which is particularly valuable for expressing a specialist's reasonable view as to the over-activity frequently displayed in the treatment of slight affections of the nasal mucous membrane. He says (p. 265):

Rhinology has made rapid strides of late, and operative rhinology has accomplished much for the benefit of humanity. It has, however, added something to the sufferings of mankind. As a student of rhinology for more than a decade, with considerable clinical material at command, I know what the ideal normal nose should be. As an aurist who examines the anterior nares in most cases, I also know full well how far this organ may deviate from health (if a normal nasal mucosa be implied by the use of this term) without occasioning any symptoms referable to this part. I would therefore contend that at present we know as the normal an ideal which is not often met with. Indeed, if the persons who, in answer to leading questions, state positively that they are not in any way troubled by symptoms referable to the nose be examined, the probability is that more than half will show such evidence of disease, for example, spines on the septum, thickening of the mucosa over the turbinate bodies, etc., as would lead to severe operative measures being advised by many rhinologists if they were to carry out what they advocate. This excessive operative zeal appears to me a great danger, threatening, as it does, the credit of our profession as a whole and rhinology in particular. I have dwelt, perhaps, unduly on these points, but the practical result I desire to lead up to is this—let no surgeon be induced to operate on the nose simply because there is some degree of hypertrophy of the mucosa unless the symptoms are sufficiently important to warrant such interference.

GELATINOUS POLYPI.

The gelatinous polypus of the nose consists of a delicate fibrous network infiltrated with mucin. The hygrometric properties of nasal polypus are well recognised by patients, who complain that their noses are always "more stuffy" in damp weather. Springing from the superior and middle turbinate bones, the mucous polypus is usually fairly visible from the anterior nares, where it presents a characteristic yellow mass which readily reflects the light, and this I look upon as its best marked sign. And yet mistakes are made in the diagnosis of polypus, and the commonest, in my experience, is that of taking the convex side of a deviated septum or the anterior extremity of a hypertrophied inferior turbinate bone for a growth. This last is especially apt to happen in a child with a *nez retroussé*, and it is well to bear in mind, therefore, that polypus in children is very rare, although of course not unknown.

[To be continued.]

MEDICAL MAGISTRATE.—Dr. Thomas J. Henry, Government Medical Officer for the district of Warialda, New South Wales, has been appointed to the Commission of the Peace for the colony.

THE SYDNEY BABY-FARMING CASE.—Makin and his wife have been committed for trial on the charge of manslaughter owing to the discovery of the bodies of fifteen infants in houses occupied by them at different times.

At the annual dinner of the National Dental Hospital, held on November 25th under the presidency of Sir J. Crichton-Browne, it was mentioned that the new building which was being erected by the munificence of a lady would, when completed, be one of the most complete dental hospitals in Europe.

THE PHYSIOLOGY AND PATHOLOGY OF BLOOD DESTRUCTION.

Being the Grocers' Scholarship Lectures delivered at the Examination Hall, Victoria Embankment.

By WILLIAM HUNTER, M.D.,

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LECTURE II.

II.—SEATS OF HÆMOLYSIS.

IN the first lecture the conclusion was arrived at that an acute hæmolysis (as distinguished from a slow decay of the blood) is an event of every day occurrence. The question now arises, where does this hæmolytic change take place? Does it occur throughout the blood generally, or is it localised to certain organs? The organ which at once suggests itself in this relation is the liver. Are not the bile pigments formed there, and are they not derived from hæmoglobin? Is not the liver the seat of deposit of pigment in diseases, such as pernicious anæmia and malaria, in which everything points to an excessive hæmolysis?

The spleen also is at least a probable seat of this process. Is not blood pigment in greater or less quantity an almost constituent of this organ, and are not its peculiarities in structure and in the circulation specially favourable to the occurrence of changes in the blood?—The same arguments, though to a much lesser degree, apply to the red marrow.

BLOOD PIGMENT AS AN INDEX OF THE SEATS OF HÆMOLYSIS.

What significance are we to attach to the blood pigment so frequently found in one or other of these organs? On this point observers are by no means agreed, doubtless for the reason that hitherto no exact data have been at hand on which to base a definite opinion. Thus, in the case of the spleen, some observers, like von Wittich, have referred the pigment to capillary extravasations of blood arising from the great delicacy of the splenic tissue, while others (and these, perhaps, the majority) are content, like Quincke, to refer it rather to what may be termed the "scavenging" or collecting function of the spleen, in virtue of which that organ arrests all kinds of effete particles circulating in the blood, including old effete corpuscles.

It is thus still an open question how far the presence of pigment in the spleen indicates that that organ is the seat of an actual destruction of red corpuscles, as distinguished from a mere burial place of old corpuscles that have gradually become functionless. Similarly in the case of the liver, it is still an open question how far the hæmolysis which the presence of pigment undoubtedly implies has actually taken place within the liver itself, or how far, on the other hand, it may not have taken place elsewhere, the hæmoglobin being merely carried to the liver to be disposed of.

Lastly, assuming that both these organs are the seat of hæmolysis, it still remains to be ascertained to what extent they act independently or in association with each other, how far their relative activity in this respect may be judged of by the relative amount of blood pigment they contain. To these and other collateral questions my experiments have supplied some very definite answers, which I can briefly state as follows:

THE SPLEEN.

My observations on the spleen lend no support whatever to the view that the presence of blood pigment is in any way connected with, or can possibly be referred to, the occurrence of capillary extravasations of blood. On the contrary, the typically congested spleen of cardiac or hepatic disease I have frequently found singularly free from any pigment at all.

Nor do they support the view that the pigment merely collects there as the result of the scavenging function of that organ.

So far as mere collecting function is concerned they show that the liver is a far more important organ than the spleen, as may be best judged by the relative amounts of pigment particles found in liver and spleen respectively after injection of carmine or ultramarine blue into the blood. The liver contains by far the most.