

present on trial, and notwithstanding the fact that we have no easy clinical test, and that the technique is distinctly difficult at present, still, future improvements will no doubt render it simpler, as in all other branches of medicine. An interesting experiment by Bulloch and Western showing that opsonins have a certain specificity is of the greatest value, because, if this be thoroughly established, it will prove that a patient may be normal in the quantity of opsonins, capable of fighting the invasion of the organisms of suppuration, and yet may not have the necessary resistance to tubercular invasion.

The fact that inoculation of a particular vaccine may at first reduce the opsonic power is a very important one because of this negative phase as Wright calls it. It is to be regretted that we have not a simple clinical means of detecting this negative phase because, naturally, if agents be introduced during this period, mischief may result, and this, to some extent, may explain some of the unfortunate phenomena which followed the early treatment of tuberculous cases of Koch's first attempts with tuberculin. After resting a sufficient time until the opsonic power has reached the higher level, treatment may begin again, and although other negative phases may occur, evidently there is a tendency for each successive one to become less severe than the former. It may be, therefore, that Wright's belief that inoculation with tuberculin T.R. may yield better results in the future provided care is taken to protect the patients by repeated, though troublesome, calculations of the tuberculo-opsonic index. It is becoming evident from a study of our literature that in cases of lupus, tubercle, and other affections in different organs those in charge of the cases deem it advisable to safeguard the patients in this way, and it is to be hoped that more records will be found in the year to come of the use of this new index in the treatment of these affections as well as malignant disease of the larynx and upper respiratory tract.

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THE enthusiasm which marked the introduction of the subcutaneous injection of paraffin for the correction of certain nasal deformities has somewhat abated. The results, cosmetic and otherwise, have not always come up to anticipation, hence the recoil of the pendulum. In saying this it must not be considered that the method is one to be wholly condemned. On the contrary, that it

has a useful *rôle* in nasal surgery will be admitted by all progressive rhinologists. The lapse of time since the introduction of the method has, however, clearly demonstrated that results good at the time of operation are not always permanent, and that it is advisable to bear in mind certain definite risks. Recently the injection of cold paraffin has been somewhat extensively employed in place of paraffin with melting points of 110° F. and upwards. In the treatment of atrophic rhinitis (*ozæna*) the submucous injection of paraffin has been employed, and is held to be a useful adjunct. By building up the atrophied turbinals the tendency to crust-formation appears to be diminished, whilst the power of blowing the nose appears to be materially increased. The submucous injection of paraffin has also been used for the purpose of building up the interior of the nasal passages following extensive operations upon the nasal accessory sinuses, more especially upon the ethmoidal labyrinth.

The vexed question as to the exact etiology of nasal polypi still remains unsettled. Dr. Lambert Lack, in his recent work "Diseases of the Nose and its Accessory Sinuses" maintains the view originally advanced by Woakes, that the growth of polypi is the result of an osteitis of the underlying ethmoid bone. Dr. Eugene Yonge, on the other hand, in a monograph entitled "Polypus of the Nose" endeavours to establish the following proposition: "that polypi are œdematous hypertrophies of the nasal mucous membrane, the indirect result of certain mechanical changes in the glands."

Although a great mass of evidence is brought forward by both authors in favour of their own particular theory, we venture to think that at the moment no one of the many theories advocated as being the essential etiological factor can be accepted without reservation.

An interesting observation is made by Killian in reference to the origin of mucous polypi of the choanæ; he believes that these polypi (often partly cystic) spring from the antral mucosa, make their way through the ostium maxillare into the nasal fossa, and passing in the direction of least resistance, appear in the rhinopharynx.

The surgery of the nasal accessory sinuses fills up many pages of the rhinological literature published during the past year. Although no very original innovations are to be found, the views and experiences of various operators are clarified, and several details in technique of a useful nature are to be found. A growing

tendency is evident to treat such cases, so far as is possible, *per vias naturales*. Although sympathising with this view, it must be borne in mind that but few really genuinely chronic cases have been recorded where permanent cure has followed simple lavage and the injection of remedial agents. That an effort should be made to operate intra-nasally is unquestionably most praiseworthy, and possibly, as technique and armamentarium improve still further, may meet with greater success in the future than appears at present to be the case.

The necessity for extensive operations upon the nasal accessory sinuses must depend upon the amount of discomfort the patient suffers from and upon the risk to life from such complications as intra-cranial suppuration, septicæmia, and the like. So far statistics show that intra-cranial sepsis following accessory sinus suppuration is comparatively rare. A very clear and concise description of the cerebral and ophthalmic complications following sphenoidal sinusitis is given by Dr. StClair Thomson in the *British Medical Journal* of September 29, 1906.

No doubt the exact cause of suppurative meningitis, suppurative encephalitis, and other septic intra-cranial lesions is frequently missed partly owing to the paucity of *post-mortem* examinations and partly also to the want of a thorough examination of the accessory cavities *intra vitam et post mortem*. Taking everything into consideration, however, the tendency to intra-cranial suppuration following nasal accessory sinus disease is not very great, and we venture to think that the relative position of the various sinuses and of their ostia permitting at least fair drainage into the nasal cavities has much to do with its relative infrequency. We venture also to think that a fair deduction is that the line of rhinological progress—so far as the treatment of suppurative disease of the accessory sinuses is concerned—should lie in the cultivation of methods of intra-nasal procedure. Unfortunately, many of the external operations in vogue, whilst undoubtedly relieving symptoms, cannot by any means be described as really curative. A cautious conservatism would appear to be in no way prejudicial to the patient's interests.

Treatment by means of packing, retention of drainage-tubes, and the like is rapidly being discarded in favour of sewing up wounds made at the time of operation, and subsequently employing (when pathological products have been cleared out) lavage by means of suitably constructed cannulæ. More and more attention is also being directed to the importance of clearing out all diseased

cells in the ethmoidal labyrinth in cases of antral, frontal, and sphenoidal suppuration.

In reference to the surgery of the nasal accessory sinuses, one of the most interesting and valuable papers of the year was read by Dr. C. G. Coakley at the Toronto meeting of the British Medical Association, upon "Skiagraphy as an Aid in the Diagnosis and Treatment of the Diseases of the Accessory Sinuses of the Nose."

In this paper the author demonstrated that there is no difficulty in securing a plate to show the presence or absence of the sinuses. Where the difficulty lies is in getting a plate to demonstrate the presence or absence of disease.

Practical experience here, as in other things, is of the utmost value, and the practised eye will be able to read what the eye uneducated in such matters fails entirely to appreciate. The author has demonstrated to his entire satisfaction that a cloudiness over the area occupied by the frontal sinus, and an indistinctness of the outlines of the cavity, indicate disease; also that the shadow is the combined result of a thickened mucosa and the presence of fluid in the sinus. Another very important point which he has demonstrated is that the presence of a dark, slightly curved horizontal area almost parallel with the upper border of the orbital arch indicates a backward orbital projection of the sinus.

These findings, we venture to say, will prove of great value, not only in clinching a diagnosis made upon clinical grounds, but also in assisting in determining the exact type of operation which it is desirable to perform in any given case. So far skiagraphy has not given any real assistance in the determination of ethmoidal or sphenoidal disease; but we may, perhaps, not be regarded as too optimistic in saying that a time will soon arrive when plates will be so perfectly produced as to materially assist in the elucidation of disease in these more deeply-seated sinuses.

The treatment of malignant growths springing from the interior of the nose is still far from satisfactory. In the December number of the Journal an interesting and instructive paper by Dr. Price-Brown, of Toronto, ably summarises the position, so far as the surgical treatment of nasal sarcomata is concerned. The plea made for a more extended and more thorough use of the electro-cautery knife is well worth considering, and in the light of the statistics given is worthy of an extended trial.
