Further, distinguished men outside medicine give it their support, including leaders in the Anglican and Free Churches.

As concerns sterilization: its practice is not new; it is rather that this country lags behind. It has been practised in Switzerland for nearly fifty years, and in California and certain other States for a long period. It is now recognized in Denmark, Sweden, Norway, Finland, and Germany as a means of preventing hereditary, physical, and mental defects from damaging the stock and doing injustice to future generations. The consent of the patient is needed. Explanation and, if need be, persuasion are employed, but not compulsion (except in a few scheduled exceptions). In California and Germany the law gives the right to compulsion, but in neither country is it put into force. In any legislation a "contracting-out" clause to meet the case of any patient whose religious convictions are against sterilization would be just and wise.

Administration would not be difficult. In outline it would involve a stage of investigation of the patient and the family records by two doctors, one of whom would be an approved specialist, followed by a stage of adjudication by a body, say, of two doctors and one jurist, leading to approval or disapproval of the application.

Since proposals concerning sterilization are but a particular aspect of preventive medicine, their study and presentation are in the first instance the responsibility of the medical profession.

This present-day chapter in our evolution—political, economic, and social—is set on a wider stage than its predecessors, because mechanical invention has made the countries of the world one, if not akin. Its outstanding feature is that organized constructive effort seeks more than hitherto to direct man's progress. Such effort can succeed only if it is comprehensive and has regard not only to environment but to the quality of the man himself as determined before as well as after birth.

Medical science learns daily the lesson that for collectivism, however good, it is thus far and no further. With environment sound, it is the individual man, what he inherits, what he becomes, how he overcomes, that has the first and last words. Each man has his own mould in health and illness. Finally, medical science teaches that social progress depends on regard for the narrow way of knowledge, reason, and reasonableness. Please hold that road and to the exclusion of all others, for along it lies the continued greatness of England.

R. Hansen and W. Langer (*Klin. Woch.*, August 17th, 1935, p. 1173) have examined the sense of taste in pregnant and non-pregnant women. The four sensations of taste—"sweet, sour, salt, and bitter"—were elicited by standard solutions of 40 per cent. cane sugar, 1/2 per cent. tartaric acid, 10 per cent. sodium chloride, and 0.05 per cent. quinine respectively. A number of known dilutions were prepared. The patients were instructed to wash out the mouth with 10 c.cm. of each dilution for twenty seconds, the mouth being rinsed with water between each test. Ten c.cm. of the concentrated solution was followed by equal quantities of diluted solutions until the specific taste could be no longer recognized. The solutions all had a temperature of 20° C. The threshold of each taste sensation was noted in grams. Comparisons with controls of non-pregnant women showed that during pregnancy the sense of taste is appreciably lowered. The thresholds for sweet, sour, salt, and bitter were raised by 35, 89, 114, and 60 per cent. respectively. The authors were able to endorse Kehr's findings that 55 per cent. of pregnant women have unusual "cravings" and that 35 per cent. craved for sour and only 6 per cent. for sweet things. Changes in sensation of taste are not due to local changes in the papillae of the tongue but to the influence of pregnancy on the whole central nervous system.

MANIFESTATIONS OF NASAL ALLERGY: THEIR DIAGNOSIS AND TREATMENT*

BY

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I have long felt that allergy has not received the attention it deserves, though, admittedly, the last few years have seen the awakening of some interest in the nasal manifestations of allergy.

Diagnostic Difficulties

The correct diagnosis of allergy from nasal symptoms calls for vigilance, and necessitates that the possibility of its presence should never be allowed to recede into the background of diagnostic consideration. We should do well to remember that the typical picture of a pale, boggy mucosa does not, as it were, cover the whole canvas. True, it occupies a central position, but grouped around it are other pictures, the recognition of which must become such a part of our art that, without glancing at a bottom corner of the canvas, we may say, "Here is the work of our old enemy allergy." It is in the recognition of these less obvious details that I would stress the value of an accurate history—the sheet anchor of our diagnosis in this affection. We must recognize three types (at least). When a patient comes to us saying, "I have many colds, in fact I am rarely without one," let us examine the accuracy of this statement very closely before accepting it. In nine cases out of ten it will be found that these "colds" are the sneezing attacks of hay fever. Another patient will say, "I suffer dreadfully from catarrh": all these patients label their affection as "catarrh." The third type is the most difficult to recognize, for many patients complain of nasal blocking, and nothing more. Here is a pitfall for the diagnostician. Unless it is remembered that the early morning and the late evening are the times of election for the manifestations of allergic phenomena in the nose, the sight of apparently normal nasal cavities when the patient is seen during the day will only arouse suspicions of neurasthenia.

Once we begin to think "allergically" (a habit which I believe the large number of allergic patients justifies) a little further questioning along the lines of "family history" will frequently furnish additional confirmatory evidence. As is well known, asthma, hay fever, urticaria, eczema, cyclical vomiting, some forms of purpura, migraine, angioneurotic oedema, pruritus, etc., form a group of symptoms (I think you will agree that they should be regarded as symptoms and not as diseases) with an allergic basis in a large percentage of cases. Association of itching in the eyes, ears, and palate will give additional confirmation in a case suspected of being allergic in origin. Apart from its colour, which in my experience is nearly always pale in proportion to the severity of the symptoms, the extreme irritability of the nasal mucosa in allergic patients is of considerable diagnostic value. The slightest manipulation causes swelling, rhinorrhoea, and excessive lachrymation.

Determination of an Infection

One point in the diagnosis of allergy to which I should like to direct attention is the difficulty of distinguishing between a chronic catarrhal affection with polyposis and changes in the deeper mucosal layers and an allergic affection without any infection. It is possible to have: (1) polyposis due to allergy; (2) polyposis due to infection; and (3) polyposis with both allergy and infection.

* Read in the Section of Laryngology at the Annual Meeting of the British Medical Association, Melbourne, 1935.

The presence or absence of an abnormal type of nasal secretion—mucus pus or pus—is a rough test for determining the presence or absence of infection. Regarding the value of the finding of an excess of eosinophil cells as a criterion of the presence of allergy, I would rather not dogmatize, but will leave the decision to the pathologists who will discuss this subject. I may, however, mention the findings of Kahm and Stout.¹ They conclude that a high eosinophil count when examining the nasal secretion is almost invariably diagnostic of the presence of allergy, while the presence of a large number of polymorphonuclear leucocytes indicates infection. As a rule, I think one may receive the necessary guidance from the appearance of the mucosa, or (in those cases in which operation is rendered necessary by the character or extent of the morbid changes) on the reaction of the tissues to operation.

It seems appropriate to mention at this point our attitude towards radiological reports on this type of case. Mucosal thickening will be almost invariably found, and this fact calls for a modification of the attitude that for so long has been accepted as correct. If an allergic patient has a waterlogged nasal mucosa he also has a waterlogged sinus mucosa, and an x-ray examination will reveal it as such, but another x-ray picture taken twenty-four hours later may show a normal mucosa. This point will be referred to later when discussing treatment.

Treatment

Now as to treatment, and once more to consider an overpowering wealth of material. The sheet anchor I firmly believe to be a recognition of the offending protein where possible, and desensitization. The statement made by many that the nose is the portal of entry, and that therefore it is the logical point of attack, leaves me cold. There is no doubt that local treatment will benefit a large number of those who suffer to a slight extent, but even in such patients the effect is often temporary. We should go further and seek the cause. Ultimately we must answer the questions: "What is the nature of this allergic tendency? What are the inheritable characteristics determining its existence and how may they be controlled? Why does the increased capillary permeability arise?"—a series of pretty questions for the biochemist.

I am firmly convinced that testing and treatment should be undertaken only by the skilled and experienced laboratory worker; any other proceeding is likely to bring an exceedingly useful form of investigation and therapy into disrepute. Failure to obtain a positive skin reaction to foreign proteins leaves us a choice of two methods of attack, general and local. The relation of dietetics to allergic manifestations and the possibility of their control by the administration of acid ash foods has been investigated, but the suggestions made do not appear to have received very wide support. Faulty diet may be a contributing factor; but when one considers, first, the inherited tendency to allergy, and, secondly, the early age at which this tendency may make itself manifest (it has been proved to be present a few days after birth), one realizes that the root of the trouble must go far deeper than this, though it is not impossible that certain types of food may help to rectify an inherited error in body chemistry. Thyroid, mineral acid, etc., will all bring success in isolated and selected cases.

The Place of Surgery

And, finally, to consider the place of nasal surgery, applications to the nasal mucosa, etc. A large number of sufferers from allergic symptoms in the nose are ill equipped by nature to stand the attacks to which they are subjected. Their noses are high and narrow, and the

slightest swelling of the mucosa will bring the septum and the outer nasal wall into contact. The temptation for the surgically inclined to resect the septum under these circumstances is almost irresistible. Nevertheless, I should advise against surgical interference unless the septal deformity is very considerable or the septum itself is very thick. Enlargements of the turbinates may call for operation if they give rise to serious obstruction, but the point I would make is that these measures in themselves do not do more than prepare the soil for more lasting forms of treatment: they help; they do not cure in the majority of cases. In certain types of mucosal change—those characterized by extreme pallor—surgery of any nature may be disastrous, and I think we should avoid it at all costs.

Large polypi may need removal, and, in the event of a superimposed infection, more radical and extensive operations may be necessary, but again let me repeat that in my opinion supplementary treatment will be needed. It may rightly be asked what useful suggestions, if any, I can make for this supplementary treatment, and I will confess that to my mind this is the most difficult common problem (excepting otosclerosis) which confronts us in our work. Of course, if our patients could all be desensitized we need look no further for aid; but unfortunately many of the types exhibiting the severest symptoms do not appear to be demonstrably protein-sensitive, though they conform so closely to the allergic types in other respects that we must accept them as such. For these I always employ zinc ionization, and I have found it to be a very valuable therapeutic agent. Should it fail I turn my patient over to the radiologist for treatment, not with invariable success certainly, but often with very gratifying results.

There is one question that I must touch upon: the role of the rhinologist in the treatment of asthma. I am constantly having patients referred to me, together with x-ray films demonstrating mucosal swelling, with the statement that the patient requires a radical operation on the sinuses in order to bring about a cure of the asthma. I believe that in the presence of infection operation must be undertaken; in its absence I refuse to be talked into what I believe to be a surgical futility. What annoys me intensely is that so many physicians cannot appreciate this point of view even to the extent of admitting that there *might* be something in it.

I am sure that it is just as wrong to be profoundly anti-surgical as it is to be surgically extreme in one's outlook. We can all point to many cases of asthma greatly benefited by radical (very radical) operation, but we must select them; and only our experience will be our guide as to which are likely to do well and which are likely to end in disappointment for all concerned.

S. A. Klein (*Bruns' Beitr. z. klin. Chir.*, July 29th, 1935, p. 15) discusses the uses of Besredka's antiviral—the filtrate from a twice inoculated and incubated broth culture of bacteria. The local use of the antiviral, as recommended by Besredka, is advisable in certain cases, but its undoubted good effects are not specific, the immunizing effect depending partly on protoplasmal activation and partly on an unknown factor which may be antigenic in nature. Experimentally, Klein found antiviral effective in securing healing in infected fractures or wounds, and in peritonitis following ligature and perforation of the appendix. Clinically, on the contrary, the antiviral was useless in acute perforative appendicitis and of doubtful utility in infections of the hand. It deserves trial in recent compound fractures, is effective in erysipelas, and in Klein's experience secured satisfactory healing in twenty-three cases of surgery of the intestine or rectum. Here the dose used for the local application was usually 50 c.cm.

¹ *Journ. Amer. Med. Assoc.*, October 29th, 1932.