radical methods in the treatment of certain oblique and joint fractures? If both are put on a sounder and safer basis, this must be answered in the affirmative.

The only way to more certainly maintain the accurate coaptation of the fragments is to immobilize them by silver wire, screw, nail or clamp, but only under the most approved aseptic conditions. In the absence of infection the results must be better. This department of surgery has not been met with the courage and skill

Fracture of Thigh. Posterior View.

that has been so manifest in other fields, and it is too important not to receive the serious attention it deserves.

Carl Beck² says, in reference to skiagraphs, that there are injuries, the correct interpretation of which presupposes, besides thorough anatomic knowledge, the greatest care and a vast amount of experience as to the different modes of delineation in various projection planes.

The greatest diagnostic difficulties are offered by the joints. With a distinct skiagraphic plate, taken under improved scientific conditions, it should, he avers, with expert clinical and anatomic knowledge, be evidence in court.

The *Annals of Surgery* for August contains an elaborate scientific paper by Cotton, of Boston, on the "Pathology of Fractures of Lower End of Radius." In reference to the Roentgen ray, he says: "It may be said in advance that there seems to be no single form of lesion described from any actual specimen which is susceptible of demonstration in the shadow picture that has not been demonstrated in one or more clinical cases; nor has the x-ray discovered any previously undescribed lesion. . . . It needs no argument to show that the x-ray plate, valuable as it is, is in many ways rather an imperfect record."

The American Surgical Association, at its last annual meeting, in May, by unanimous vote passed a resolution that the skiagraph is inadmissible as evidence in court, because, being a picture of a shadow and not of the object, it is inaccurate and unreliable.

The only tenable conclusion, it seems to me, is that the skiagraph should never be used as the determining factor in regard to the existence and pathology of fractures, but may be, in honest and capable surgical hands only, used to supplement or confirm opinions reached without it. It must always be a condition that the electrician is equally honest and competent. The illustrations and facts familiar to surgeons show beyond a doubt how unjust and indefensible a conclusion must be, in or out of court, that is based solely or chiefly on the appearances of the skiagraph.

GENERAL BODILY RESISTANCE AS A FACTOR IN NOSE AND THROAT DISEASE.*

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Good health is sometimes regained after the organism has been long below par, but in these cases there does not seem to be as much surplus to draw on as in those cases in which there is an exuberant vitality—in which, with a heritage of good health to start with, there has been a continued triumph of health and resistance over the encroachments of disease. It is this tendency of repeated small attacks of sickness acting as a drag upon the natural tendency of the body toward health that should be carefully watched by the physician. For example, a cold in the head is not generally considered a very dangerous thing, but frequently recurring colds in the head will lead to lack of resiliency in the parts affected that may gradually lead to chronicity.

The majority of the cases coming under the care of a throat specialist are chronic, and the treatment generally aims to remove the effects of some long-continued morbid action. It is a fact that most chronic affections of the upper respiratory tract are notoriously difficult to cure by medication, either local or general. The great advances in the specialty came when surgical means were perfected whereby good ventilation and drainage could be secured. These improved methods of treatment, which were forwarded greatly by the discovery of cocaine, almost revolutionized the practice of the art, and now the percentage of cases that can be relieved is high. Still there are certain classes or stages of these

* Presented to the Section on Laryngology and Otology, at the Fifty-first Annual Meeting of the American Medical Association, held at Atlantic City, N. J., June 5-8, 1900.

2. Med. Record, N. Y., Aug. 25, 1900.

troubles which either are not amenable to surgical treatment or are liable to recurrence—and here is where our wisest forethought has its play.

Chronologically, at least, heredity has more influence upon bodily resistance than anything else. Evolution teaches us that physical types are transmitted. Sometimes particular family stocks seem to have greater immunity to certain diseases than others. In the case of infectious diseases this might be accounted for by saying that the soil had become exhausted and is not suitable for the growth of certain bacteria. It is like the well-observed fact that yeast will not propagate in well-fermented bread or wine. In ordinary cases it is reasonable to believe that if one's ancestors lived in such an environment as to induce good health in themselves, in all probability their descendants would inherit physiques which would make their bodies more likely to withstand morbid influences. On the other hand, "the sins of the fathers will be visited upon the children," and their omissions and commissions will be evidenced in their descendants by that which we call lessened resistance. Because your great grandfather was fond of a certain brand of wine is the cause of your tendency to sore throat. This is a rather devious course of reasoning, but thus Nature does her work.

We would all choose healthy ancestors if we could, but as that is impossible—except when selecting a family coat of arms—we can do the next best thing and select as suitable an environment as possible; and, after all, this is almost as important as a healthy ancestry. I am not prepared to question the fact that in many of the diseases of the upper respiratory tract the most brilliant results are brought to pass through means almost purely surgical; still, of the great mass of these diseases treated, attention to the patient's environment is the most vital point in giving genuine relief. By environment is meant the sum of the surroundings and conditions. Used in this sense it would include the patient's food, habits and hygiene—in fact everything, other than the patient himself, which has an influence upon the local condition. This would include all extraneous matters that tend to promote health. Used in this sense the environment is facile princeps, but it should not be forgotten that drugs used for their general and local action are nearly always necessary as adjuvants to other directions and advice.

There are good reasons why repeated acute attacks of coryza, and repeated engorgement of the local lymphatic glandular structures lead to hypertrophic conditions. There are good reasons also why these repetitions occur at short intervals in some individuals and at long intervals in others. Things do not come by chance, and in these patients who are such an easy prey to local disease there must be some type of constitution either hereditary or acquired, or both, to account for their susceptibility.

Because the lessened general resistance which causes this susceptibility acts so often through the nervous system, and because the nervous affections of the nose are intrinsically of such interest when studied from the standpoint of this paper, one or two of them will be used as illustrations. We will speak of the group of reflex nasal diseases in which the irritation seems to be centripetal, and of hyperesthetic rhinitis, in which the irritation manifests itself centrifugally.

In regard to the so-called reflexes which are caused by pressure points within the nose, it has always seemed to me that the general system was more at fault than the nose. The nervous system of the patient had lost

its nice adjustment, so that irritation at the periphery is manifested in some other region as reflex disturbance. It is recognized that the cause in the nose is only slight, but it is just sufficient to disturb the balance in a nervous system which has all but lost its poise. It will most often be found that individuals suffering from these reflexes are manifestly of a neurotic type, and although the existing malady is relieved by removing the peripheral cause, it will be found that the nervous instability still exists, and likely will evidence itself in other directions. In this class of cases it is important not to saw off a spur in the nose and assume that the patient is thereby cured, but by reconstructive treatment build up and regenerate. If this spur was causing asthma, or hay-fever, or tic douloureux, there is further work for the physician, even though the symptoms are relieved—for the general resistance of the patient must be improved or he will have headaches from some eye-strain, will have prolonged bradycardia after he has the grip—or some other ailment of like nature.

There is another type of nasal disease, the hyperesthetic, in which it is necessary to increase the tone of the nervous system before much improvement begins. The cases are somewhat similar in their manifestations to hay-fever, but do not seem to be influenced by season. In my experience the disease occurs most often in anemic individuals who have confining occupations and are suffering from some constant worry. These cases, like their near relative, hay-fever, undoubtedly evidence some positive interference with metabolism. Uric acid seems to be retained in most of them, but whether this is a cause or an effect, the lithemia improves as the patient gets better. Tonics, sunlight, less introspection will cure some of these cases, which are very baffling when treated by local medical and surgical means only.

The physician who treats diseases of the nose and throat should not be so narrow as to treat the local trouble by local remedies only. *Æsop* tells a fable of the members trying to boycott the body, but to their surprise they found that they suffered to as great a degree. The withholding of nourishment from the body caused not only emaciation of the body, but also caused other parts to be equal sharers in the calamity. It is a rule that works both ways. If the body had attempted to boycott the members, it would have had meted out to itself the same degree of suffering. I have seen many cases of chronic pharyngitis much benefited by the patient abstaining from alcohol or tobacco, and excessive taking of sweets will often so disturb metabolism as to cause a pharyngitis and tumescence of the turbinated bodies. Change of habits in this regard has led to relief of the local trouble. These are very familiar causes of disturbance here, but frequently other causes may be found, the removal of which will lead to just as satisfactory a result.

I wish to make a plea for a practical application of these facts. Not only should the patient coming to us with these local troubles be given instructions in hygiene, etc., in order to more surely throw off the local ailment, but one should make it a constant study to notice and consider his patient's mode of life and environment, and strive to be ready with advice that will forestall trouble.

In order to intelligently give the patient other than local treatment the specialist should always remember that he is physician first and specialist afterward. He should inquire carefully into the patient's family and personal history, the course of the present disease; and, except in cases which he knows can be permanently cured surgically, he should bring to his aid all the

modern means of questioning the body. To do this methodically he should have minute notes of his cases. The card system is most convenient, and in private practice the financial account of the patient can be kept on the back of the case card appropriately ruled for that purpose. This will make it necessary to use and refer to the card at each visit and thus keep in touch with every phase of the local and general condition.

It sometimes requires close questioning of a patient to find just how he is transgressing the laws of health. The young lady eats "only a little candy now and then," but if you should happen to have her sweetheart as a patient during the same period, a little sympathetic questioning may bring out the fact that he is furnishing her 5-pound boxes of bonbons at more or less frequent intervals. Then your "moderate drinker" and your "moderate smoker" and your "slow and small eater" sometimes evidence an astonishing atrophy of their sense of perspective, and you may find upon going somewhat into statistical detail that they surely look at the things they consume and the faults which they have through the large end of a telescope. It is often a good deal of bother when we are busy to go into these minute and harassing details, but by so doing we put the practice of medicine and its legitimate branches upon a higher plane.

When the body at large requires treatment it is preferably administered by the laryngologist, especially when it can be done concurrently with the local treatment, but in some cases it is well to put the treatment into other hands. When so much depends upon relieving disturbances of metabolism and in keeping the whole body in a healthy condition, we surely are not doing the best for our patient if he is not given the benefit of modern appliances to secure these ends. While the specialist can not, and may not, limit himself to local work only, it is incumbent upon him to realize that some general treatments can be carried out better in other hands. He can not be expected to have the armamentaria needed for some cases; time does not permit him to become thoroughly conversant with all the kaleidoscopic changes in the whole field of medicine, and if he believes that some one else is better fitted to cure the general disturbance, the patient should be referred.

Prevention of chronicity, prevention of formation of hyperplasia, will save a train of complications which may mar the patient's future life. After many of the glands of the mucous membrane have been almost destroyed by chronic inflammation, after the function of an ear has been almost destroyed by chronic purulent otitis media, some relief can be given by modern treatment, but it is a make-shift after all. The glands can be stimulated to do twice the work they were intended to do and thus help out their shriveled companions, and the carious bone can be scooped out of the ear, but probably there was a time in the history of each of these cases when enlightened and conscientious oversight might have abolished the causes that led to these sequelæ. If we believe that heredity has something to do with these cases it is all the more important to prevent chronicity and recurrences; for then we are doing what we can to improve the type, and are building for the welfare of this patient's prospective descendants. Any good accomplished in any line of work is never in vain.

Ocular Disturbances from Thyroid Treatment.—The *Semaine Med.* mentions that two Belgian physicians have recently reported a few cases of optic neuritis or asthenopia as the only indication of intolerance of thyroid treatment. The ocular troubles subsided on suspension of the treatment.

SYSTEMIC FACTORS IN CATARRHAL DEAFNESS.*

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Chronic nonsuppurative inflammation of the middle ear by its very location is a most difficult disease to treat; and when we add to this the fact that it is rare for any of these patients to come to us until the disease is of several years' standing, we do not wonder that a doubtful prognosis has been the rule in the past, but if we are to call ourselves specialists, is it to our credit that we should sit calmly down and accept defeat, with our present facilities for reaching the deeper parts of the head?

Without frequent exacerbations an inflamed mucous membrane, even in the most advanced chronic form, is not beyond relief and practical cure. The number of our cases of catarrhal deafness where more than this simple inflammation obtains and the deeper labyrinthine structures are involved, is very small indeed; so what is our proposition but a simple one if gauged by some of the complex and serious problems that confront men in other specialties?

If the middle-ear trouble be in the earlier stages, what will do it more good than free and normal ventilation? Close the vestibule of one nostril and see how soon you will have a congested state of the membranes; open the vestibule and see how soon normal ventilation will restore health to the parts.

If the middle-ear affection has gone further and the ossicular chain is hampered by products of inflammation, what will assist their absorption quicker than that the parts be again bathed with a normal supply of air? What will limber up its stiffened joints better than the mild stimulation and passive motion produced by the well-known application of camphor and iodine vapor¹ puffed into the tympanic cavity? Stimulative treatment of this kind, by reason of its effect on products of inflammation and ossicular mobility, acts with practical certainty in benefiting the hearing. All this can be attained and maintained if the little Eustachian tube, not more than two inches long, be kept normally patent. The degree of improvement will be according to the completeness with which we have removed prime and contributing factors; this is no mean task, but, as a rule, possible, if we grasp the situation and apply ourselves. Hence I can not feel that we are justified in discouraging that multitude of cases under 60 years of age who still retain the ability to understand clearly spoken words, and who are quite ready to have treatment when medical minds will agree on its utility.

Nonsuppurative inflammations of the middle ear, regardless of form, depend upon similar conditions for their origin; the principles of treatment involved in their relief are the same. However, necessity does not demand a dissertation on varied abnormal conditions within the tympanic cavity, neither will I assume to cover in this paper all the factors that may act as causative elements, but rather will devote myself to those most likely to impede recovery of the hearing power.

In looking over recent progress it must be admitted that what ability we now possess to successfully cope with catarrhal deafness is in a great measure due to the advance in rhinology, for this work as a preliminary step to future efforts appears peremptorily demanded. The improved state that has followed correction of

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