affect humankind—all the more serious in that its graver consequences are usually so remote that the connection between cause and effect has not as yet impressed itself upon the minds of the laity, or even of the medical profession as a whole. Worse yet, the cities teem with advertising quacks and the druggists' shelves are stocked with advertised nostrums that claim to quickly cure this disease so serious in its consequence and so intractable in a considerable proportion of cases. The first duty, then, of the profession in this regard would seem to be to impress the gravity of the disease on the minds of their patients, so far as possible, and, as opportunity offers, on the minds of the public generally. Young men should be taught authoritatively that a man with an uncured gonorrhea is a man dangerous to himself, to his family and to the community; that no acquisition to the "wild oats" period, not even syphilis, is likely to be so fraught with serious results to them and to their families in after life. Whatever may be the outcome of syphilis to the individual, under a proper course of treatment and in a period of time fairly well determined, he may marry with a reasonable prospect of having fairly healthy children, and of not infecting his wife. Moreover, a syphilitic expects to undergo from eighteen months to two and a half years' treatment before he is wholly cured, and submits to it willingly. But with gonorrhea, unless a patient knows by the actual determination of the physician, that the very last gonococcus has been dislodged from his urethra and the glands and organs in connection therewith, he is liable to infect his wife with an inflammation that may cost her her ovaries and tubes, if not her life, and the least penalty that it is likely to entail upon her is hopeless sterility. The sooner these facts are known to young men, and parents, and young women the greater will be the incentive to self-control on the part of young men, the greater will be the reluctance of parents to consent to the marriage of their daughters to men whose characters are not clean, and the more willing will those be who are so unfortunate as to have contracted the disease to submit to the treatment necessary to effect a complete cure.

Your Committee would emphasize the necessity of every physician treating every case of gonorrhea seriously, treating it thoroughly from the beginning, treating it with all the appliances which modern science places at his disposal, and not discharging the patient as cured until every evidence of pyogenic process in the secretions of the urethra or of the adjacent glands has disappeared. The members of the profession should also do their best to enlighten their clientele regarding the serious dangers involved in the use of nostrums prescribed over counters by druggists and sold from their shelves and advertised in the newspapers—nostrums which profess to cure this disease rapidly and completely. The fact should be emphasized that the disease is not necessarily nor even probably cured when the visible discharge and the burning have ceased; that just at that time it may be taking on its most insidious, chronic and intractable form; that just at that time, when the discharge has apparently ceased, is the time it is essential to know positively from a competent man whether the cure is apparent or real, whether there be any disease remaining in the deeper urethra, its glands, or the organs connected therewith.

Aside from the question, whether or not a physician can be legally required or even allowed to report a case of venereal disease, it is doubtful in the minds of your Committee whether any plan of examination of prostitutes or any plan requiring a report to health authorities of cases of gonorrhea occurring in the hands of general practitioners and specialists can be made practicable. The lesions of syphilis are visible to the naked eye, they are obvious, they can be inspected; the gonococcus, however, is microscopic and elusive—so elusive that a person may be infectious and yet half a dozen careful examinations may fail to demonstrate the presence of a single one. While it would be easy enough to demonstrate the infectiousness of a person in the acute stage, it is not through cases in the acute stage that infection is chiefly spread, but from cases which suppose themselves well, hence it is that the only hope we have of suppressing the spread of the gonococcus is by cultivating a general intelligence regarding the danger and the insidiousness of the contagion, and by never discharging a patient from our hands as cured until, after the use of all the means that science has placed at our command, we can say positively that in all human probability he is no longer infectious. Then, and only then, can consent to his marriage be given.

The thanks of the Committee are due to our colleagues in the profession who have so cordially responded to our questions, and to Drs. William Conrad, E. J. Rose, A. Pasini and

A. Ravogli for their kindly aid in the translation of the manuscripts in German, French and Italian.

Respectfully submitted,

L. B. TUCKERMAN, Chairman.

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PURULENT OTITIS—ITS TREATMENT AND PREVENTION BY THE FAMILY PHYSICIAN.

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The scope of the present paper is defined exactly by its title. It is to present to the practitioner the teaching of modern otology regarding a very important disease, for acute purulent inflammation of the middle ear is so common that the majority of cases, at least among children, are seen by the general practitioner, and not by the specialist. Frequent experience has shown me that the form of treatment which progressive otologists have recognized as the best and safest has not yet been adopted by all general practitioners. Yet it is so much simpler than the less efficient methods so often employed or advised by physicians. It is but the application of ordinary surgical principles to purulent inflammation localized in the ear. Just as in the preantiseptic days, wounds did heal after a fashion, so in incorrectly treated cases purulent otitis will often heal, but delays and unfortunate accidents are much more common. Many an

ear and occasionally a life is lost which a little care on the part of the attending physician would have saved.

The diagnosis of acute purulent otitis is very definite. Sudden earache with some feeling of fullness and moderate deafness leave but little doubt as to the diagnosis. The view of the uniformly reddened drumhead seen through the speculum dispels all doubt. During severe infectious diseases, like measles, scarlet fever and diphtheria, the depressed condition of the patient may mask the onset of the ear symptoms, and it is particularly necessary under these circumstances to watch for them. Some doubt may arise in a given case whether the disease is the ordinary form of purulent inflammation, which surely terminates in perforation of the drumhead with discharge through the meatus, or whether it may not be the milder or abortive variety in which no perforation takes place. The latter form is much less common. As a rule the prognosis can be made within the first day. When the pain lasts continuously, perforation will surely follow. When the pain is intermittent, perhaps only nocturnal, the exudate may disappear without discharge through the drumhead. It is only when the pain has been distinctly intermittent that surgical puncture of the membrana tympani should be deferred. Otherwise the interests of the patient are best served by immediate paracentesis.

The first demand of the patient is usually for relief of the severe pain. The use of the various popular ear drops, tincture of opium in sweet-oil, camphorated oil and a host of others can not be condemned too severely. They are all utterly useless and have no influence on the pain. No form of application is known which can surely stop the earache of purulent otitis. Carbolic acid dissolved in glycerin—10 to 12 per cent. solution—has a slight benumbing influence in some mild instances, but it is not to be depended on. It may perhaps help to avert perforation in the mild form of cases. It can therefore be endorsed as a palliative and perhaps slightly curative agent, all the more so since it sterilizes the skin of the meatus if left in place sufficiently long. External heat in the form of the hot-water bag or the Japanese stove gives slight but grateful relief. Severe pain, however, can only be controlled by opium internally. The speediest way of obtaining relief is immediate paracentesis.

The curative treatment consists in draining the discharge promptly and efficiently and preventing secondary changes. The effusion is present as soon as the disease manifests itself, and the sooner it can escape the quicker the relief and the milder the course. It has not been sufficiently emphasized that the discharge is serous at the start—at least in most instances—and only becomes purulent later on. The more severe cases, and especially those due to streptococcus infection, may seem exceptions to this rule. In some of these instances mentioned the effusion is purulent when it breaks through the drumhead or even when paracentesis is done after thirty-six hours. I am quite in doubt, however, whether an earlier puncture would not have shown a serous fluid even in these apparent exceptions. When proper treatment is begun during the stage of serous discharge, the latter can be prevented from becoming purulent and the disease will then pursue the mildest and shortest course possible. Not only is its duration shortened, but the liability to complications is diminished. Personally I have never seen mastoiditis supervene in a case in which the discharge remained serous.

The change from a serous to a purulent discharge is

in some instances due to later secondary (mixed) infection by bacterial invasion through the meatus, as can be shown by bacteriologic analysis. But I believe that this is only a later accident and that primarily the purulency is due to insufficient drainage of the serous discharge. For whenever the discharge is retained in the middle ear until a late spontaneous perforation occurs, perhaps on the third or fourth day, it is almost surely purulent. Experience thus points out three well-defined indications in the treatment, viz., early paracentesis, efficient drainage, absolute asepsis.

Puncturing the drumhead is an easy, safe operation for which every practitioner ought to be prepared. The technical details are found in all text-books on the ear. It must be remembered that it causes a sharp, but transient, pain which can not be diminished by any local anesthetic. Before the operation the meatus should be cleansed by syringing if it contains wax or scales of skin, otherwise this is unnecessary. After spontaneous perforation or paracentesis syringing should be avoided. It is useless at best, and if repeated seems to influence the disease unfavorably. If required in order to obtain a view of the punctured drumhead, it should be done with sterile water and under aseptic precautions.

Before paracentesis the meatus should be sterilized in a reliable way. Watery carbolic acid solution may be left in place for at least three minutes, filling the meatus and the auricle. Carbolic acid dissolved in glycerin is not as active a disinfectant and requires a longer time, but its efficacy is increased by previously moistening the walls of the meatus with water. The same sterilization is required before applying the first dressing after spontaneous perforation. For the purpose of drainage, a narrow strip ($\frac{1}{2}$ by 4 inches) of a good absorbent gauze is pushed with a probe through the disinfected speculum into the meatus until it touches the drumhead. The concavity of the auricle is then packed with bits of gauze until a thick pad is formed. As the discharge is sometimes very copious, a large absorbing cushion is required. It may be retained by a strip of adhesive plaster. The external pad should be replaced when it gets moist, which the properly instructed patient can do himself. The strip in the meatus, however, should only be changed by the surgeon once in one or two days. As it is impossible to assure permanent sterility by asepsis alone, it is best to powder the gauze freely with a mixture of boric and salicylic acids (6 to 1). With sufficient thoroughness a serous discharge can thus be prevented from becoming purulent and the patient be saved considerable discomfort, delay and danger. Even when the treatment is begun too late, when the discharge has assumed a purulent character, it is still the best method to insure the most rapid course under the circumstances. Occasionally it happens, especially with a purulent discharge, that the walls of the meatus get macerated. It is best to omit the salicylic acid in such instances, using only boric acid, and to protect the skin by smearing with an oxid of zinc and lanolin salve after thorough drying.

The prevention of acute otitis consists in attention to those influences which are known as causes or predisposing factors and which the family physician can control. The most important of these is the enlargement of the pharyngeal tonsil, or adenoid vegetations. I have observed with much satisfaction that the profession is getting more and more to recognize the importance of this frequent morbid occurrence, and it is only rarely that I now hear the old vicious advice given to patients,

"to wait and outgrow it." Experience has shown in the most positive manner that an enlarged pharyngeal tonsil enormously increases the danger to the ear whenever the child takes scarlet fever, diphtheria or measles or merely acquires an acute nasal catarrh. The family physician should insist, without exception, on the removal of adenoid vegetations whenever they are of sufficient size to produce the easily recognizable symptoms of nocturnal nasal obstruction. The operation is free from risk of any kind and properly done causes very little pain.

A second important influence which often leads to a suppurative otitis is the misuse of the nasal douche. I do not condemn the nasal douche as such. It is a valuable therapeutic method with definite indications. But it should not be advised except for these specific indications, since in other instances it is useless. I do not think that it ought to be recommended by any one not fully familiar with nasal pathology. In spite of numerous warnings by otologists, many physicians are still not fully aware of the dangers of the douche. When water gets into the Eustachian tube a violent otitis is almost sure to follow. Many an ear has been permanently damaged and much needless suffering has been caused by the careless advice to a patient "to syringe out the nose." Worse even than this is the suggestion to snuff up fluids or to pour them into the nose with some spoon-shaped device intended as a substitute for the douche. The different contrivances sold for this purpose have not even the valid excuse which can be claimed for the douche itself. The latter does really remove viscid secretion from the upper part of the nasal cavity, where its presence perpetuates disease. The substitutes do not accomplish this at all, but carry with them all the danger to the ear incident to nasal irrigation.

A physician not well versed in nasal diseases will do better to avoid the nasal douche and to substitute for it the liberal use of the spray from a good atomizer for the purpose of removing secretion. Though less efficient than the douche, it is safe. Its frequent employment, especially in the suppurative rhinitis accompanying the infectious diseases of childhood, lessens to a moderate extent the liability to infection of the middle ear. The material used in the atomizer is nearly irrelevant. It is the mechanical effect, which can only be obtained by a coarse, watery spray, upon which its utility depends.

Clinical Reports.

PRIMARY UNION IN A GUNSHOT WOUND.

REPORT OF CASE.

ALBERT SOILAND, M.D.

LONG LEAF, LA.

S. V. C., night-watchman at a planing-mill, was accidentally shot while stooping to pick up an object from the floor, his pistol falling out of its holster and being discharged upon striking the floor. The ball, of 41-caliber size, entered the anterior fold of the left axilla, between the third and fourth ribs, and emerged at the back, between the sixth and seventh ribs, just external to the axillary border of the scapula. The patient was able to walk from the place of accident to his house, a distance of 500 yards, and when I arrived I found him bleeding profusely and complaining of an intense burning pain through the entire left side. There was very little shock noticed and he was in good spirits. The anterior wound was

round, clean and surrounded by a few powder-burn marks. The posterior wound, or point of exit of the bullet, was large and ragged, and from this the hemorrhage ensued. On careful palpation I could not detect any crepitus nor signs of extravasations of blood in the pleural sac.

Treatment.—Both wounds were syringed out thoroughly with hydrogen peroxid, packed with sterile gauze, and a moderately tight bandage applied. Ten grains of citrophen were administered and a like amount ordered taken in one hour if very restless. On the following morning the dressings were removed and the same procedure gone through with as before. Pain was now nearly gone and hemorrhage reduced to a mere oozing of serum. No further internal medication was deemed necessary, as the pulse and temperature were found to be normal. A saline was administered, however, and a generous diet of easy digestibility instituted. On the fourth morning dressings were found to be absolutely dry and the anterior wound nearly closed up, the posterior being reduced to one-half its original size and filled with healthy granulations. A fresh dry dressing was now applied, plain sterile gauze being placed over the wounds and a minute quantity of iodoform was sprinkled into the meshes of the gauze, this dressing to remain on indefinitely. On the sixth day the patient walked about and suffered no inconvenience, except a little stiffness noticed in the left side. On the morning of the tenth day dressings were removed and both wounds found to be nicely healed, a firm cicatrix covering each one. That night he resumed his work as watchman, exactly ten days from the time of accident.

It might be well to state that that patient had taken a bath and donned clean undergarments just prior to the accident. He wore no coat nor vest, as the weather was extremely warm. This may account for the absence of infection and the aseptic condition of the injury throughout its course.

CASE OF TYPHOID IN AN INFANT.*

MINNIE C. T. LOVE, M.D.

DENVER, COLO.

The only notable thing in this case is the age of the patient. She was born March 8, 1900, so that she was 8 months old at the time of contracting the fever. When I began taking her temperature, regularly, I found it ranging between 102.5 and 103 in the mornings, and 103.5 and 104 in the afternoons. I was attending an older brother who had scarlet fever, and the mother called my attention to the baby, saying that she had had considerable fever of nights for over a week. On examination, I found rose spots on the trunk, and a dry, brown tongue. Although the clinical picture was so plain, I was skeptical, and asked Dr. J. N. Hall to see the patient with me. He was of the opinion that it was an undoubted typhoid, and the examination of the blood by Dr. Wilder, for the Widal test, confirmed the diagnosis. The course of the disease was typical, the temperature gradually declining, and reaching normal about the twenty-first day. The rose spots were very plentifully distributed over the trunk and limbs. The temperature, from about the tenth to the seventeenth day, rose to 104 F., every evening. The babe was entirely breast-fed. There was no tremor nor delirium noticeable, no tympanites and no diarrhea. This was the third case in the family since September 6. A girl of 10 years was very ill, a severe relapse prolonging the attack to over seven weeks. Ten days after the first, a child 3 years old developed a well-marked case, but it aborted about the fourteenth day. Between eight and nine weeks elapsed between the first and third cases. The mother had typhoid twelve years ago, but, as the oldest child had such a severe attack, and the 3-year old a more moderate one, we may exclude any condition of the mother's blood being transmitted to the baby which would give a Widal reaction. Unfortunately, the mother, who nursed all the children, destroyed the temperature records. This case is interesting, as it is rare to see typhoid under 2 years of age.

Nevada Building.

* Read before the Denver and Arapahoe Medical Society.