which the lymphoid tissue becomes softer and larger. The infection spreads to the lymphatic glands, draining the inflamed area, causing them to enlarge.

In an uncomplicated case there is no tendency to suppuration either in the lymphoid tissue itself or in the lymphatic glands. Suppuration when it occurs is probably always due to the implantation of one or more of the common pyogenic organisms on a tissue the normal resistance of which has been impaired by disease.

If so much be accepted we may fairly claim that the disease is highly infectious, and that children suffering from it are "carriers," and therefore a source of danger to others.

The treatment required is that of the individual, and preventive treatment.

1. Treatment of the Individual.

The ideal is to render the post-nasal space sterile and the diseased tissue normal; it is doubtful whether this ideal can ever be attained, for the tonsils and adenoids, once they are infected, never appear to regain their normal structure. As in other chronic infections elsewhere, the process whereby infection is eliminated is one in which the diseased tissue is replaced by fibrous tissue, and not until the fibrosis is complete can the disease be said to have been arrested. In this condition, as in other chronic infections, the "natural" cure postulates the disappearance of function in the affected structures.

In these circumstances it is unlikely that any medication will ever be satisfactory; and it is certain that at the present time there is no local application capable either of rendering the post-nasal space sterile or the infected lymphoid tissue normal in structure and function.

In view of the failure of this method of achieving our object we must resort to surgery, and anticipate Nature by removing as much of the diseased tissue as possible. The great advance made in recent years in the treatment of the individual is by the introduction of the operation of enucleation of the tonsils and thorough removal of the adenoid mass.

After this operation, efficiently performed, the majority of children show improvement at once, in that the rhinitis disappears, the cervical glands cease to be palpable, the beds of the tonsils and pillars of the fauces become healthy in appearance, and in some cases the post-nasal space becomes sterile; a sufficient number of bacteriological examinations have not, however, yet been made for us to be sure that this happens in the majority of cases.

There is a definite relation between the thoroughness of the operation and the number of "cures" effected. Partial removal is followed by disappointing results; children are frequently seen of whom it is stated that they have undergone removal of tonsils and adenoids two or even three times, yet the three cardinal physical signs are found still to be present, and, in addition, some complication, such as running ears, which was not present at the primary partial removal.

Apart from such cases as these, there are a few in which even after thorough removal the disease continues unchecked. Perhaps in some of these the lingual tonsil and lateral bands which cannot be removed are sufficient to keep the infection active. In others the inferior turbinates, which sometimes remain enlarged, would appear to be the cause. In the remainder possibly the causal organism is of a different nature, and is able to thrive in the nose and post-nasal space even after the diseased lymphoid tissue has been removed.

2. Prevention.

The reason why no steps have hitherto been taken with regard to the prevention of this disease is possibly to be found in the fact that its infectious nature has not received the attention it deserves.

Preventive measures have been taken with regard to other diseases spread by carriers, such as diphtheria and cerebro-spinal meningitis, which are not nearly so common or far-reaching in their complications, though they are more immediately serious to the individual in that they are more acute; yet in the aggregate the amount of harm done to the community as a whole is insignificant compared to that done by the disease in question.

The harm done by chronic infection of the lymphoid tissue of the fauces and post-nasal space is very great.

Its direct complications are far-reaching, spreading beyond the sphere of the throat and ear surgeon, the ophthalmic surgeon, and the laryngologist, into the domain of the physician, in the shape of bronchial affections and lobar and broncho-pneumonia.

Its indirect complications are even more serious, for the lymphoid tissue, having lost its natural resistance, is rendered more liable to become a port of entry for other specific infections such as tubercle, rheumatic fever, measles, scarlet fever, diphtheria, and influenza. If preventive measures which resulted in lessening the incidence of this disease were adopted, the incidence of all its complications, both direct and indirect, would be lessened also. Further, recognizing that in the above list of complications are included the diseases from which a large proportion of the death and disability of the community results, the importance of stamping out the origin to which they can all be traced is evident.

A discussion of the details of prevention would unduly prolong this article; the difficulties are numerous, but by organization on sound lines much could be accomplished. Encouraging results may be confidently expected from the adoption of open-air schools and vaccination, but before the latter method can be used the specific organism must be definitely isolated.

It is to be hoped that the Ministry of Health will consider the subject of prevention of this "carrier" disease, for until adequate measures are adopted the disease and its complications, both direct and indirect, will continue to be rampant.

Summary.

1. The disease is highly infectious.
2. It is spread by carriers.
3. Its complications cause widespread death and disability.
4. The treatment of the individual is satisfactory if complete removal be carried out.
5. The necessity for preventive measures is urgent.

RUPTURED GASTRIC ULCER IN AN OLD MAN: LAPAROTOMY: RECOVERY.

BY

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A SUCCESSFUL case of laparotomy for ruptured gastric ulcer at an advanced age is sufficiently rare to justify the publication of the following:

Mr. W. G., retired civil engineer, aged 78½ years, had enjoyed good health all his life and was never known to suffer from dyspeptic symptoms till within a week or so of his present sudden illness. He had always been very regular in his habits and most abstemious in diet. Lately he had confined himself to two substantial meals a day, breakfast and lunch. The latter meal was generally taken at 2 p.m. A cup of tea without solid food at 6.30 p.m. completed his diet for the day, and nothing more was taken until next morning.

History.

In April, 1909, he was operated upon by one of us (A. F.) for stone in the bladder, and in May, 1911, for enlarged prostate. Except for a small ventral hernia in the neighbourhood of the suprapubic scar, he had remained well until a week previous to the present illness. During this week he had suffered from rather vague dyspeptic symptoms with some tenderness in the right epigastric region. On the day of perforation, December 16th, 1919, he had a meal of haddock and rice pudding at 2 p.m. At 6 p.m. he was sipping his usual evening cup of tea when a sudden severe pain in the epigastric region doubled him up. When seen at 7.30, he was in great agony, cold, clammy, and blue, with rigid abdomen and dilated pupils. The pulse was 50, weak and irregular, and his general condition so serious that death appeared imminent. He was given morphine gr. ½ in three doses at short intervals, with very little if any relief of pain. At 9 p.m. he was again thoroughly examined. The abdomen was like a board, the liver dullness was diminished but not lost, and there was no evidence of fluid in the flanks; he was cyanosed, the pulse was 65, and the heart's apex was outside the nipple line. His arteries were hard, tortuous, and ringed. There was no vomiting. The pain was now more general, but the maximum intensity was in the epigastrium. The bowels had acted as usual that morning.

Operation.

It was decided, on consultation with his friends, to give him the slight chance that operation alone afforded, and he was removed to a neighbouring nursing home. The operation was begun five hours after the onset of pain. Ether, with a small quantity of alcohol and chloroform, was administered by Dr. Robert Marshall, and anaesthesia was quiet and satisfactory. In addition, conduction anaesthesia was produced by blocking the intercostals with novocain, and good relaxation was obtained. The abdomen was opened in the middle line above the umbilicus. On incising the peritoneum a quantity of thin, slightly turbid fluid, with some gas, escaped. A punched-out, circular aperture about the diameter of a lead pencil was found in the stomach. From this exuded a small quantity of dark-coloured mucoid fluid. Surrounding the opening for at least an inch the stomach wall was indurated, inelastic, and friable. There were some omental adhesions to the upper part of the indurated area. The ulcer was situated on the anterior surface, three or four inches from the pylorus, and near the lesser curvature. The edges of the ruptured ulcer were infolded with difficulty, owing to their rigidity and friability, by two rows of linen thread sutures. A piece of omentum was sewn over the repair for greater security. The fluid lying in the neighbourhood was mopped up and the abdomen was closed in three layers without drainage, the whole procedure, including the induction of anaesthesia, having lasted twenty-six minutes.

After-History.

Recovery was uneventful, and the patient left the nursing home within three weeks, apparently quite well.

He was examined on January 22nd, 1920, about five weeks after the operation, and was then free from pain, in his ordinary health, and able to get about as usual.

A METHOD OF TREATING TINEA.

BY

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As a result of so many men having to serve in many districts of the East (India, Mesopotamia, and Egypt) and East Africa, a form of tinea, known in the East as dhobie or washerman's itch, has become prevalent in England.

This variety invariably attacks the crutch and upper and inner surfaces of the thighs, sometimes extending upwards around the root of the penis and posterior part of the scrotum; the intense irritation causes a desire to scratch, accentuated at night and leading to insomnia. It is very contagious, and may easily be conveyed to others by laundries unless means are used to disinfect the clothing and sheets effectually before they are sent to be washed. Patients should be isolated completely until a cure is obtained.

I have treated many cases, both at home and abroad, with success by a combination of *x* rays and chrysophanic acid ointment (gr. xxx to 3j of lanoline).

An ordinary *x*-ray tube of medium hardness may be used, or, better, one of the later "gas" tubes which can be regulated, or, best of all, the Coolidge tube, as by its use the hardness required can be got and the exact dosage wished given. If a "gas" tube is used it should be tested to give a penetration of 8 by Wehnelt's radiometer. With a Coolidge tube the battery should be 4 ampères, and the primary current should give a reading of 8 to 10 milli-ampères.

When the tube selected is ready the patient undresses and lies upon a couch, so that the part to be treated can easily be got at. Every part in this region, except that to be treated, must be adequately protected; this can best be done by a sheet of the prepared lead-lined rubber the same as used in protective aprons. Over the part to be treated is placed a thin sheet of lead $\frac{1}{8}$ in. thick, with a hole a little larger than the exposed part. A thin layer of the chrysophanic ointment is spread all over the part and a little beyond the outer borders of the tinea. The tube is then brought into position so that the target is directly over the centre of the part to be treated, and from 8 to 10 in. away from the surface of the skin; an exposure of five minutes exactly is given. Having finished one area, the application is made with the same precautions to another patch.

The dose is large, but I cannot give the exact amount, none of the methods at present in use being reliable. I measure by time guided by experience.

After the treatment is finished the ointment should be wiped off the skin in order to prevent staining of the linen or clothes by the chrysophanic acid.

In 90 per cent. of the cases treated in this way one application was sufficient to cure; in a few a second was given to make doubly sure.

For the first two days the skin shows a brown pigmentation due to the chrysophanic acid; this gradually disappears with slight desquamation, and by the end of a week the skin is clear and normal, the tinea having disappeared. Several cases, even those of long standing, cleared in two or three days.

In brunettes or dark-haired people no filter is necessary, but in persons who are fair or with a tinge of red in the hair a filter should be used, $\frac{1}{8}$ in. aluminium being sufficient; in red or coppery-red-haired people $\frac{1}{4}$ to $\frac{3}{8}$ in. will be necessary. Fair-haired and very red-haired people are much more susceptible to *x* rays, and in them I have found it necessary to reduce the time of exposure to three minutes, otherwise a radio-dermatitis with deep pigmentation due to the chrysophanic acid will result; this is, however, easily got rid of by zinc ointment.

The same treatment can be carried out with tinea on any other part, but before applying the ointment the tinea should be washed with ether soap. By the same method psoriasis also can be got rid of, but it does not cure, as patches always return either in the spring or fall of the next year.

X rays alone will not cure this very irritating complaint; the chrysophanic acid ointment will in time, but it stains the clothing. The two combined will cure, and, curiously enough, all irritation ceases after the application, so that patients are not worried and get at once a good night's rest.

There should not be the slightest risk to any patient of sterilization if proper precautions are used to protect the generative organs.

Memoranda:**MEDICAL, SURGICAL, OBSTETRICAL.****HERPES ZOSTER AND GREYNESS OF HAIR.**

THIS is a case in which grey patches appeared in the hair of the right side of the face during an attack of herpes zoster which affected the region of the right forehead.

The attack of herpes zoster and the appearance of the grey patches occurred in 1867. The patches of greyiness were permanent; they are now becoming merged in the general greyiness of advancing years.

It can be seen in the figure that the patches of greyiness appeared on the fronto-nasal (inner extremity of right eyebrow), naso labial, and mental maximum points described by Dr. Henry Head in *Brain*, Part III, 1894, "On disturbances of sensation with especial reference to the pain of visceral disease."

I venture to publish this case for two reasons: the first is that it supports the observations I have published in many articles in this JOURNAL on the relation between certain forms of the hair's greyiness and the nervous system; the second reason is that it is so difficult—at least I find it difficult—to discover any additional changes of nutrition accompanying lesions of herpes zoster. The grey patches of hair observed in this case appear to me to exhibit an additional change of that kind. The figure here produced is made from photographs taken years ago. The subject is a doctor, who has kindly given them to me with the history of his case.

London, W.

G. LENTHAL CHEATLE.

ATROPINE IN ACUTE SUFFOCATIVE CATARRH.

As acute suffocative catarrh is, in my experience, very rare, I wish to mention one case I treated some years ago.

A gentleman, aged 70, went to bed one night quite well,