organism upon the surfaces of the ordinary culture media. A small quantity of the discharge, having been spread upon the slide, is first stained with alkaline methylene blue, and the presence of intra-cellular diplococci ascertained. Another such slide is stained with Gram's stain, which consists in first coloring with aniline oil water gentian violet, washing with water, and then treating with the iodine, potass. iodide solution of Gram, again washing with water, finally with alcohol, and drying.

Under such treatment the cells lose somewhat of their sharp outline, but the principal change is in the organism; the dark-colored diplococcus, losing its intensity, is seen as a bleached, oftentimes rose-colored, organism, within the cell outlines, and characteristically grouped. The degree of the bleaching of the gonococci is in a direct proportion to the length of time that the bleaching reagent is allowed to remain upon the slide, and may be carried so far as to render the diplococci nearly invisible. It is often possible in this manner to demonstrate the invasion of the large hexagonal and becher cells of the conjunctiva by this organism.

A specific infection of the conjunctiva by the pneumococcus sometimes followed by corneal complications seems to be, from the number of cases seen, well established. Under such circumstances the discharge is thin, and may or may not be profuse. Generally it is poor in cellular elements, and shows here and there in the smear single pneumococci. The cultures from such eyes show small pneumococcus growths.

In those forms of pneumococcus infection associated with tear duct disease in young children, both the clinical and microscopical pictures are striking. In many of these cases it is impossible to tell clinically in such children whether we have to do with a gonococcus or pneumococcus infection.

The microscopical pictures presented by smears, however, are widely different. Here the pneumococci are found in large numbers, the discharge is profuse and containing fibrin-like strings. The appearances are enhanced by a capsule stain, and exhibit a different microscopical picture from that offered by the pneumococcus infection in the adult. In the cultures, large growths of pneumococcus are formed almost to the exclusion of other organisms.

Regarding the microscopical observations in acute contagious conjunctivitis, there is at present some doubt. Dr. Weeks, of New York, claims a specific bacillus in the bacterium bearing his name. He postulates that it is to be found in every case of this disease. The experience in the bacteriological laboratory of the Massachusetts Charitable Eye and Ear Infirmary does not bear out this assumption. In some few cases the organism that he describes has been found, exhibiting upon culture media the same biological characteristics, and in the smear being identical with those in smears made by Dr. Weeks himself, and kindly lent by Dr. Standish.

The vast majority of all such cases, however, show the commoner pyogenic organisms both in the smear and growth, namely, the staphylococci, streptococcus, and in some few other cases the bacillus xerosis and the bacillus pyocyaneus.

The object of this communication is principally to call attention to the fact that in those cases of contagious conjunctivitis where the clinical diagnosis in the beginning is difficult or impossible, the possessor of a

good microscope may ascertain the infection with which he has to deal, thus promoting early treatment, and using the cultures as a means of control.

Clinical Department.

A REPORT OF THREE CASES OF CANCER OF THE STOMACH IN WHICH HYDROCHLORIC ACID WAS PRESENT.¹

BY H. F. VICKERY, M.D., BOSTON.

It has been thought that the absence of hydrochloric acid in cancer of the stomach was a pretty constant symptom; and the somewhat remarkable coincidence of seeing three cases in one year all having hydrochloric acid present should be put on record. They were all three inmates of the Massachusetts General Hospital.

CASE I. Entered Dr. Shattuck's service in November, 1895. She was sixty-two years old. Digestive symptoms began about one year before entrance; in six months she had failed in weight from 160 to 97 pounds. The stomach was dilated. Vomiting was frequent, and at first there was no free hydrochloric acid found, but after she had improved somewhat it appeared. In December it is recorded that in four specimens of vomitus hydrochloric acid was present twice, and in January in nine specimens of vomitus hydrochloric acid was present five times. She improved decidedly, and was discharged much relieved in February. The great improvement, the presence of hydrochloric acid, and the absence of any tumor led to the belief that this was a case of dilatation of the stomach.

April 13, 1896, two months after she left the hospital, she re-entered, and came under my care. She had grown worse; and at this time no hydrochloric acid was obtained. A resistant mass could now be made out. She died in May.

Dr. Whitney reported: "On opening the stomach a large mass of new growth was found, extensively ulcerated, and directly continuous with a smaller mass in the liver. The growth was made up of large epithelial cells separated by a stroma of connective tissue. Diagnosis: cancer of pylorus, secondary cancer of liver, dilated stomach."

CASE II. A man, age twenty-seven, a native of Norway, and by occupation a cook, came under my care September 12, 1896. He had had some attacks of pain in the left hypochondrium as early as June, 1895, which were relieved by drinking hot water. These continued till December. Then he was free from symptoms until three and a half months before entrance to the hospital, when he had a good deal of pain, no longer relieved by hot water. At the time of entrance he had probably lost about 20 pounds; but he looked fairly well nourished, although he was pale. A tumor could be felt, which, however, was obscured when the stomach was blown up. The stomach was not dilated, and hydrochloric acid was present in the gastric juice as late as the 12th of September. The diagnosis was cancer of the posterior wall of the stomach. On the 17th of September he was transferred to the surgical side, and an exploratory incision was made; but it was evidently a cancerous growth

¹ Founded upon notes kindly furnished by Dr. J. A. Capps, Medical Intern. Read as a short communication at a meeting of the Clinical Section of the Suffolk District Medical Society, March 17, 1897.

which could not be removed. He died the 13th of October. The autopsy showed a cancer. The age of this patient is to be noted, twenty-seven.

CASE III. A man, forty-one years old, who had had digestive disturbance for about four months, with a good deal of vomiting. He was a very nervous man, and he had used at one time a great deal of tobacco. The stomach was not much dilated, holding two and one-half pints hydrochloric acid after a test-meal was present; lactic acid was absent; and the total acidity was increased, being 72 per cent., while the normal limits are 40-60 per cent. That is, this man, with what proved to be cancer, had hyperacidity; and the chances are that the acidity was mostly due to hydrochloric acid, for there was not a dilated stomach, lactic acid was absent, and fermentation did not seem to be excessive. A tumor could at times be felt; but he was very nervous, this hyperacidity was present, and he was uncomfortable on liquid food, so that I thought that possibly it might be a case of nervous dyspepsia, and I put him on full diet and doses of bromide of potash. For a time he improved very remarkably; but it was a merely temporary improvement, then he went on in the way of a cancer. Dr. Cabot attempted to prolong his life by sewing the stomach to the intestine. I think that the patient was perhaps more comfortable afterwards. He died May 11th, having been in the hospital a little over one month.

Dr. Whitney reports: "A hard, irregular, whitish mass surrounding the top of the pylorus, admitting the tip of the little finger. Primary cancer of the pylorus, secondary cancer of the liver."

ENTIRE DESTRUCTION OF SOFT PALATE AND VELUM BY SYPHILIS.¹

BY ALBERT N. BLODGETT, M.D., BOSTON.

THE patient is a boy fourteen years of age, of healthy parentage. The disease appeared three years ago, and the case was referred to me about four weeks ago by a practitioner in another city. The following history is by a member of his family.

"He was a child of healthy parents; his father was a young man, temperate and of good habits; his mother was a young woman, had good health when the child was born, and never had humor of any kind. The child was healthy when born, and has always had the best of care and food. He never had any sickness or poor health until after being vaccinated.

"In the late fall or early winter of 1893 the city enforced the law regarding vaccination in the public schools, and all children, in order to be able to attend school, were obliged to be vaccinated if they had not been. The city sent a physician to the schools to vaccinate the children, and he was vaccinated at this time. The arm was very much swollen and very painful, and I should say he was out of school over a week. He did not seem strong after this, and in a few weeks his eyes commenced to trouble him, and grew gradually worse, until in the fall of 1894 they grew much worse, and I took him to a specialist here in the city. This doctor said it was a very bad case, and was caused by poison in the system, and gave me to understand the

poisoning was caused by the vaccination. He told me I must take the boy out of school, and that he would probably be unable to attend again for two or three years. After doctoring him for three or four weeks, the doctor said it would be a hard, long case, and advised me to take him to the Eye and Ear Infirmary in Boston. His eyes seemed to improve after taking him there. I did not take him to the Infirmary until the doctors gave up the case. He was only to go there after he had taken the medicine they gave him. His eyes seemed very much better, and his throat began to trouble him.

"A Mrs. Stasfield of this city has a little girl who was vaccinated at the same time by this doctor. This child broke out in large sores all over the body, and especially the head. These sores have been worse at times than others, and they seem to trouble her more about the time of year when she was vaccinated.

"There is another little girl in the same neighborhood by the name of Calwfrank. She had a very hard time with her arm when vaccinated, and since that time she has had a large sore on the back of her neck which has been very painful, but seems to be some better now."

No point of primary infection except the place of vaccination was at any time observed. There is a history of subsequent falling out of the hair and of an indolent long-continued inflammatory condition of the eyes, of which there is now no trace. There was at the time I saw him a place across the dorsum of the nose covered with white, glistening skin, which had attracted the attention of the mother, and was somewhat tender to the touch; a discolored patch on the upper lip was also visible. I wrote to the physician who had been attending the case, and received this note in reply.

In the case of W. F., after my examination I diagnosed it as syphilis. There was ulceration up to the posterior nares, the soft palate was almost ulcerated off so the part hung only by a few fibres. I think the cause is due to syphilitic virus [received] when he was vaccinated.

Respectfully, R. F. PFEFFERKORN, M.D.

Dr. DeBlois kindly saw the case yesterday, and diagnosed it as one of undoubted specific disease.

The case presents very much the appearance of the colored plate marked B and the one on the succeeding page marked D, in Dr. DeBlois's article (in the "Transactions of the Laryngological Association") as far as it can be said to conform to anything I can show you.

At the time of my first examination, the boy was in bad general condition. The skin was everywhere very pale, the face haggard, pulse weak, appetite poor; and he complained of weakness and increasing languor. He has not been in school for three years, but has recently commenced a course in manual training which does not overtax his strength and which he enjoys.

Examination of body reveals enlarged glands in the right neck; none elsewhere. One large, pigmented spot is observed on the face, a few doubtful ones elsewhere. On the left arm is a large, depressed cicatrix from vaccination—thin in texture, pale in color, but not otherwise remarkable. Examination of chest negative. No history of cough. Breathing is entirely by the mouth, and the breath is of a sickening, sweetish odor and quite offensive. He cannot breathe

¹ Read as a short communication at a meeting of the Clinical Section of the Suffolk District Medical Society, March 17, 1897.