Original Communications.

CASE OF CHRONIC GASTRIC ULCER.

By J. B. TREADWELL, M.D. Read before the Suffolk District Medical Society, January 29, 1870.

A. G., æt. 52, by occupation a mason; of medium size, but rather spare habit. Health generally good. When young, and until within a few years, was in straitened circumstances and was obliged to subsist upon a very insufficient diet, consisting almost entirely of farinaceous substances; notwithstanding this, however, he has generally maintained a fair state of flesh and health.

During the last two years he has suffered almost constantly from severe pain in the epigastric region, which became much more intense during the last three months of his life. So severe was this pain that, during the period last mentioned, it was necessary to keep him constantly under the influence of morphia, which was administered by subcutaneous injection. He had about three hundred injections during this time, and the largest amount injected during any one day was between seven and eight grains.

At 4, A.M., Saturday, Dec. 11, without known cause, the pain suddenly became perfectly agonizing—so intense that opiates in any form and quantity failed to relieve it, and continued so until 10, A.M., Dec. 14, when he died, apparently of exhaustion from the pain.

Autopsy, 22 hours after death. Body rather thin, but in very fair condition of flesh; slight rigor mortis.

Upon opening the abdomen, dark-colored fluid was seen issuing from an irregular circular opening, about four lines in diameter, situated in the lesser curvature of the stomach near the cardiac orifice.

The stomach and other organs and tissues in the vicinity were firmly bound together by thick and extensive adhesions, apparently of long existence. The peritoneal covering of the stomach for some distance around the perforation was, however,

free from adhesions. The abdominal cavity contained about 3xxx. of thick flocculent serum. There were some slight recent deposits of lymph in the upper part of the abdominal cavity.

Upon opening the stomach it was found to contain about 3x. of dark brown fluid, similar to that seen escaping through the perforation into the abdominal cavity. In the lesser curvature directly at the cardiac orifice was found an ulcer of ovoid form, measuring $2\frac{1}{4}$ inches in its long by $1\frac{1}{2}$ inches in its transverse diameter. This ulcer involved all the coats of the stomach except the peritoneal, in almost its entire extent, and the latter was perforated at one point as before stated.

The edges of the ulcer were thickened in some places to the extent of four lines, abrupt, and almost perpendicular to the base, although in some parts cicatrized.

The stomach otherwise was apparently healthy.

The liver was about one-third larger than usual, of a light yellow color, and in a state of fatty degeneration.

The spleen was one-half less than the normal size, its capsule was wrinkled and corrugated, and the connective tissue of the interior of the organ had the appearance of being greatly hypertrophied; this, however, was probably due to the contracted condition of the organ.

The kidneys were rather under the normal size and their capsules abnormally adherent; the cortical substance of a pale yellow color, very soft and friable; the pyramids indistinct in outline, and in the whole organs in a condition of fatty degeneration.

The other abdominal organs were healthy.

At the extreme apex of each lung there was a thickened and opaque patch of pleura about ten lines in diameter, perfectly symmetrical, and without any change in the subjacent pulmonary substance or costal pleuræ.

The heart was rather small and flaccid, but apparently normal in other respects.

The only symptom in this case that was of any value in diagnosing the disease

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was the pain, severe and constant, which was quite characteristic of the lesion. But on the other hand the fact that it was not aggravated by the taking of food, and the additional fact that the patient suffered from severe attacks of neuralgic pain in other parts of the body, particularly about the head and face, would naturally lead to the supposition that the epigastric pain was of the same nature, and thus its importance as a diagnostic symptom would in a measure be overlooked.

There was never any vomiting of blood, and with one exception, there was no vomiting whatever throughout the entire duration of the disease; and upon this occasion, which was about a month previous to his death, it was only very slight, and probably entirely irrespective of the lesion. The absence of this symptom, however, is explained by the special anatomical seat of the ulceration.

The absence of increased pain upon taking food into the stomach is also explained in the same way.

The absence of marked emaciation so common in this disease when the lesion is of long duration, is also due to the special site of the ulceration, which was such as to occasion but very slight interference with the performance of the physiological functions of the stomach, and also to the absence of vomiting which was due to the same circumstance.

There was, however, constipation alternating with diarrhoea—the attacks of the latter, however, always being slight—a combination of symptoms very common in cases of this kind. The constipation is generally thought to be due to lack of ingestion of a proper amount of solid food, and the diarrhoea to imperfect digestion of that which is taken; this, however, does not seem to have been the cause of these symptoms in this case, as a fair quantity of solid food was habitually taken, and the absence of marked emaciation is pretty good evidence that it was tolerably well digested and assimilated.

It has been thought that persons who for long periods have been deprived of suitable food, are specially liable to become the subjects of this lesion, and this case, so far as it goes, is confirmatory of that view.

It would be an interesting point to decide whether the degenerated structural condition of the liver and kidneys in this case, was due directly to deficient nutrition consequent upon the lesion existing in the stomach; and also whether the contracted and atrophied condition of the spleen was

due directly to the same cause, or to the lack of its proper amount of work as a blood-making organ from insufficient supply of blood-making material, the latter deficiency being due to a certain amount of interference of the ulceration with the performance of the functions of the stomach, or to both.

VACCINATION.

BY A SEARCHER FOR LIGHT.

SPEAKING of smallpox, says the report of a committee on the subject to the American Social Science Association, in October, 1869:—

"Thus, both these nations have come into the possession of a principle which really lies at the foundation of the modern practice of vaccination, namely, that a mild form of the disease will preserve from a second attack, just as surely as a severe form. By artificial implantation the smallpox poison is introduced into the system, and, *once for all, the susceptibility of the system to smallpox is excited and exhausted.* How this takes place is not understood. *But vaccination will do the very same thing, as far as the essential is concerned; that is, it will exhaust the capacity of the system for having the smallpox.*" Page 2.

After this, what do the committee intend shall be understood by the statement on page 7? "Some persons have smallpox twice; and some have it after a thorough vaccination." And what do they mean by the following table on page 9?

Classification of patients affected with smallpox.	Number of deaths per cent. in each class respectively.
"3. Vaccinated:—	
a. Having 1 vaccine cicatrix, - - -	7.73
b. " 2 vaccine cicatrices - - -	4.70
c. " 3 " " " - - -	1.95
d. " 4 or more vaccine cicatrices - -	0.55
I. Having well-marked cicatrices - -	2.52
II. Having badly marked cicatrices - -	8.82
"4. Having previously had smallpox - -	19.00"

Again, on page 7, we read in Italics:—
"For when a person is once vaccinated, though poorly, it becomes difficult or impossible to vaccinate him properly"; and they go on to say: "Nevertheless, if the first result is unsatisfactory, let the trial be repeated as soon as convenient, and as often as may be required, until a satisfactory result is attained." With their faith in the *impossibility*, how long a time, and how many vaccinations would be required before "a satisfactory result is attained"?

Again the report says:—

"The lymph direct from the cow some-