These 3 cases of recurring neuritis must not be confused with another kind which is rather more frequently seen. A second attack of neuritis may occur very rarely in cases of albuminuric retinitis, as noted by Uhthaff.³ Gowers⁴ describes a cerebral tumor case in which, after the papillitis subsided, the disc had a normal appearance till shortly before the death of the man, at which time a recurrence of the neuritis was noted. Marked improvement in the patient's general condition accompanied the subsidence of the neuritis.

It is important to note that when this case was first seen at the City Hospital, the changes in the fundi, especially the maculae, were noted as typical of retinitis albuminurica. It is a fact that the same appearance of neuro-retinitis or neuritis may be caused either by brain tumor or chronic interstitial nephritis. Burr⁵ in a recent article, draws attention to the possibility of mistaking the cause of either fundus appearance. He cites a few cases of chronic nephritis, causing simple neuritis, which were considered by the oculist to be due to brain tumor. Græfe and Sæmisch⁶ say that a papillitis with or without brain tumor may occur and therefore may exactly resemble a neuritis as seen in brain tumor. Wadsworth⁷ maintains that the same or very similar fundus changes may be seen in cases of leucocythemia, (probable) meningitis, or diabetes. It seems, therefore, that neither is the stellate figure about the macula typical alone of chronic nephritis, nor is the simple neuritis indicative only of brain tumor. A few cases have been reported by Schmidt and Wegner, Bruns and von Græfe,⁸ in which it was conclusively shown that the ophthalmoscopic picture (although practically identical with that seen in retinitis albuminurica) was caused by a cerebral tumor. There was no renal disease in any one of these cases.

The first one, by Schmidt and Wegner, was a woman of twenty-three years who first complained of headache, vomiting, dizziness and gradually failing sight. The fundus of the left eye showed the papilla swollen and red with indistinct edges. A light gray infiltration lying close to the edge of the papilla and also encroaching on it, covered the vessels in part of their course. There were also white spots characteristically arranged and hemorrhages about the macula. In the right eye the papilla had a clearer edge than in the left, but was of a grayish-red color. The veins were tortuous. Diagnosis: Retinitis albuminurica. No cardiac or renal symptoms present. The swelling from the exudates in each papilla increased and the diagnosis was changed to neuroretinitis in each eye. The vision decreased somewhat during this time. Nasal scotomata were found with the perimeter. No albumin was found in the urine at this time, and the physician under whose charge she had been at first, stated that the repeated tests

for albumin had always been negative. The post-mortem examination showed a gliosarcoma situated in the left lateral ventricle.

The second one, cited by Bruns,⁹ was a man thirty-six years old. There was a neuritis with swollen veins and white spots with hemorrhages distributed all over the retina. It was a typical picture of albuminuric retinitis. No albumin was found in the urine. At the autopsy a tumor of the frontal lobes was found; the kidneys were normal.

The third case was reported by von Græfe.¹⁰ The boy, sixteen years old, was examined by a reliable physician, who made a diagnosis of albuminuric retinitis. A later and more careful examination by von Græfe showed that (1) the white spots were thicker and more confluent about the papilla than in typical Bright's disease; (2) the general swelling of the retinal tissues about the papilla was greater; (3) the papilla showed a steep-sided swelling (although the disc may be involved in Bright's disease, yet it hardly shows, with the ophthalmoscope, a marked swelling); (4) the veins were greatly dilated, tortuous, and the papilla thereby was enormously reddened. There was no albumin and no renal symptoms. The tumor symptoms, in addition to the cardinal ones, included epileptic attacks, noises in the head, finally contractures of the neck muscles and sleepiness. Vischow found at the autopsy a medium-sized myxoma on the posterior border of the convexity of the right hemisphere.

It is surprising to note, in the present case, how indefinite and mild the clinical symptoms were, when one considers the great size of the tumor. A large part of the corpus callosum was totally destroyed, and the apex of the new growth appeared in the interpeduncular space, where it compressed the second and third cranial nerves. The only effect on the third nerve was to irritate it sufficiently to cause a temporary dilatation of the left pupil. There was no paralysis of the eye muscles.

Clinical Department.

A CASE OF ACCIDENTAL INOCULATION OF CANCER IN A FRESH WOUND.

BY A. T. CABOT, M.D., BOSTON,

Surgeon to the Massachusetts General Hospital.

At this time, when the investigation of cancerous disease is being pushed so earnestly, it is important to publish all facts which may throw light upon the etiology of the disease. The following case is presented as an instance of auto-inoculation of cancer. The case has been already published and a description of the operation has been given in a former article. Of this, only so much will be repeated here as is necessary to make plain the evidence proving this to be really a case of auto-inoculation.

⁹ Deutsch. med. Woch., 1892, No. 7.

¹⁰ Archiv., Bd. xii, 2, S. 120.

³ Uhthaff in Norris and Oliver's System, p. 595.

⁴ Med. Ophthalm., 1879, p. 267, case 15.

⁵ Philadelphia Medical Journal, 1898, No. 6, p. 254.

⁶ Handbuch, p. 578.

⁷ Boston City Hospital, medical and surgical reports 1877, series II, p. 92.

⁸ Archiv., Bd. xv, 2, S. 253.

The patient was a man of fifty-nine, with a cancer high up on the anterior wall of the rectum. An opening was made through a Kraske incision into the rectum posteriorly. The cancer was dragged down into this opening, and removed through it. During this manipulation the cauliflower-like juicy growth was rubbed about in close contact with the wound made by the Kraske operation.

All this occurred in March, 1897. The tumor removed was hardened and subjected to a careful microscopical examination by Dr. J. H. Wright, and was shown to be an adenocarcinoma.

I will at once state that up to this time (January, 1901,) there has been no sign of recurrence of the growth at its original site in the anterior rectal wall. The scar left by its removal is soft and covered by smooth mucous membrane.

Two months after the first operation a second operation was done for the closure of the posterior opening in the rectum. This was effected by refreshing the edges of the opening, and then closing it by layers of buried catgut stitches. The first row approximated the rectal wall, the second drew together the muscles and connective tissue posterior to the rectum, and a final row of silk-worm gut stitches closed the skin. Healing occurred by first intention, and the patient remained well until the summer of 1899.

At this time his physician, Dr. E. H. Stevens, noticed a hardening of the tissues behind the rectum, and I was called and concurred in his belief that a recurrence of the disease had occurred in that situation. On July 14, 1899, I operated for the removal of the mass which was about as large as a hen's egg, flattened in the anteroposterior diameter and extended from the mucous membrane of the rectum, backward, along the sacrum to which it was firmly attached. This mass was cut out with a liberal margin of, seemingly, healthy tissue about it, including so much of the rectal wall as seemed to be attached to it. The mucosa, thus removed, looked healthy. The mass which was removed was sent to Dr. J. H. Wright for examination and his report was as follows:

The specimen consists of a mass of tissue of about the size of a mandarin orange. It is made up of muscle, fat, some bone and an irregular tumor, about the size of a pigeon's egg, to which at one point a small patch of rectal mucous membrane, about 1 c.m. in diameter, is adherent. On section, the tumor presents a fibrous, trabecular structure supporting a gelatinous, translucent material. Microscopical examination of a section of the tumor, about 23 mm. in greatest diameter, shows the following:

The main mass of the section is composed of a connective tissue stroma supporting tubules formed of columnar epithelium and small cystic structures lined, in many instances, with a single layer of columnar epithelium. In some instances the epithelium is absent. The cystic structures are regarded as dilated tubules. The largest of them is about 3 mm. in greatest diameter. Most of them, as well as some of the tubular structures, contain a reticulated coagulum which is evidently mucoid in character.

The tubular structures often appear to branch. The usual goblet cells, so characteristic of the mucous membrane of the rectum, are absent from the cells lining these tubules.

The small patch of rectal mucous membrane mentioned above is continuous with the atypical tissue just described, but no transition is apparent between the characteristic tubules of the rectal mucous membrane and the atypical tubules of the new growth, for at one point there is an abrupt change in the character of the tubules.

Diagnosis.—Adenocarcinoma with colloid degeneration.

Since this operation Dr. Stevens has, on two occasions, cut out little bits of hardened tissue in the scar. Microscopical examination in each case showed the bit removed to be only a mass of fibrous tissue. (Keloid.) The scar in which the recurrence took place was separated by an interval of 5 or 6 inches from the original seat of the growth, and the tissues between have remained wholly healthy. This is plainly, therefore, not a case of direct extension of the disease. The lymphatic vessels from the seat of the original disease run upward to the lumbar glands, not downward toward the point of recurrence. This anatomical relation, together with the absence of any lymphatic structure in the recurrent nodule remove any suspicion of this having been a secondary growth in a gland. We are then obliged to believe that this was, indeed, a case of transplantation of cancer. Certainly, the conditions were favorable for this happening as the cancer, torn and squeezed by forceps, was rubbed for several minutes into the fresh wound.

This experience emphasizes the importance of taking great care during the removal of a cancerous growth to go wide of the disease so as to avoid the possibility of inoculation. This is a precaution long observed by many surgeons, but, perhaps, not sufficiently dwelt upon in surgical teaching. It is interesting, also, to note in this case that the antiseptics used to cleanse this wound, which by its contiguity to the rectum was consciously infected, did not suffice to prevent the survival and growth of the cancer elements.

MASSACHUSETTS GENERAL HOSPITAL. CLINICAL MEETING OF THE MEDICAL BOARD.

REGULAR meeting, February 8, 1901, Dr. C. B. PORTER in the chair.

DR. JAMES C. WHITE showed

A CASE OF ICHTHYOSIS IN A BOY FOUR YEARS OLD.

This is a very well developed case indeed, and it is interesting, by contrast with the other series of cases I shall show, as an affection of the epidermis and the papillary layers of the skin which begins in the first year or two of life, and remains permanently through life like those, becoming aggravated as years go on, but never undergoing any secondary changes. The other affection, xeroderma pigmentosum, begins at the same time in life, consists also of epidermal and pigmentary changes, and goes on to most disastrous results, as you know. You will please note the rough, harsh,