HARVEIAN LECTURES ON CANCER OF THE UTERUS.

By JOHN WILLIAMS, M.D., F.R.C.P.,

Obstetric Physician to University College Hospital, and Assistant-Professor of Midwifery in the College.

LECTURE III.

MOST of the cases were perhaps too little advanced to manifest secondary growths discoverable by clinical investigation, and in only three of them was the disease watched to the end, and a *post mortem* examination made. In these the glands along the internal iliac vessels, and in one those along the spine, were cancerous. The sacro-uterine ligaments were not affected in any of the three, but the cellular tissue around the cervix was diseased in two. Age seems to have a considerable influence on this form of cancer, though no age above 28

excludes it. In the ten years within which the menopause generally falls, the disease is far more rife than at any other period of life. It is comparatively rare after 50 and before 30. The history of the menstrual function, the age at marriage, the character of the labours, appear to have no influence in producing it. Hæmorrhage is a common symptom, and may come on at a very early period; but it may be absent until the disease is far advanced. Pain is often absent. Discharges are common, but were absent in four out of twenty-one cases. Wasting or extreme

emaciation was present in nearly half the cases; on the other hand, in some, there was an abundance of subcutaneous fat present at the time of death. Laceration of the cervix is often mentioned as a cause of cancer of the cervix. We found no evidence in favour of this in any one of the cases observed. In no instance did cancer start in a tear; and the tear appears to be the last part to become involved in the disease.

CANCER OF THE BODY OF THE UTERUS.

This is much less common than cancer of the cervix, and at one time it was thought that cancer never attacked the body primarily. It is certain, however, that the disease occurs much more frequently than is generally supposed. The following are brief notes of the case from which the specimen represented in Fig. 4 was taken: The patient was a widow, 52 years of age, and complained of a profuse and offensive vaginal discharge, which excoriated the external parts. She had one child at 23, and no miscarriages. There was some evidence of her having had syphilis. She had a polypus removed from the womb five years before admission. There was no history of cancer in her family.

On admission, she was pale, anæmic, and emaciated. The uterus appeared to be of about the normal size, but its mobility was impaired. The cervix was normal, except that a small villous growth could be felt in the os. The outlines of the body could not be made out, and the sound was not used. Examination by the rectum revealed several nodules apparently growing from the posterior wall of the uterus. While in the hospital, she had two attacks of fever, with the symptoms of peritonitis. Before death, feces escaped by the vagina. At the necropsy, the small intestines were found adherent to the fundus of the uterus and the wall of the bladder. At the posterior part of the uterus were several nodules projecting into the peritoneal cavity. There was a big nodule on the anterior surface where the intestines were attached, and a communication which admitted the thumb was found between the adherent intestines and the cavity of the uterus. The cavity of the uterus was a stinking abscess; its surface was irregularly nodular, and of a greyish colour; beneath this was a layer of highly vascular tissue, and, still deeper, the altered uterine tissue.

Cancer of the body may be diffuse or circumscribed, but the diffuse is the more common. It is a glandular or columnar epithelioma. The uterus is usually much, but sometimes very slightly, enlarged.

Fibroid tumour and cancer are occasionally met together in the same uterus; the cancer may invade the fibroid, but there is no satisfactory evidence that it begins in a fibroid. It grows from the whole of the inner surface of the body, enters deeply into the substance of the walls, and subsequently invades adherent and neighbouring organs, intestines, and broad ligaments, etc., but yet respects the cervix until a very late stage.

The glands secondarily affected are those in the broad ligaments and those along the spine. Secondary deposits may be

present in many organs, as in the liver, lungs, and kidneys. The disease is rare under 50. My cases were over 50, and the menopause was passed. Ruge and Veit record three cases out of sixteen under 50; two of these were under 40 years of age, one being only 32. It is as common between 50 and 60 as it is between 60 and 70. Of eighteen patients who had cancer of the body, five had never been pregnant. This shows a much larger proportion of sterile women than is met with in cancer of the cervix. Hæmorrhage is the symptom which usually attracts attention and points to the existence of the disease. Hæmorrhage after the menopause—or a “return of menstruation,” as women often call it—is a symptom which should never be neglected. It is generally, though not always, due to cancer. It is not characteristic, as has been said, for it is seen also in the endometritis of old age, and in a form of ulceration of the body of the uterus called lupus. Pain is a common symptom, and in some cases it recurs at stated hours, and is of great severity, as was pointed out by Simpson. In my cases cachexia was present in a marked degree.

The palliative treatment of cancer of the uterus was not discussed, for the natural history and pathology of the disease gave no aids

Fig. 4.—Cancer commencing in the body of the uterus has invaded the cervix as far as *b*. At *a* is shown an opening into the intestine due to ulceration.

towards it. The radical treatment of the disease consists in the removal of the diseased parts. For cancer of the body, no operation except total extirpation offers a prospect of cure. Cases, however, in which the conditions justifying the operation are present were not often met with. For cancer of the cervix, supra-vaginal amputation of the cervix gives excellent results. Total extirpation is, as a rule, not indicated for this condition by reason of the direction which the growth takes—its usual course being outwards and downwards, and not upwards, into the body of the uterus. Clinical experience, as well as pathological investigation, proves this fact, for when recurrence takes place after partial amputation, its seat is in the cellular tissue around the cervix, and not in the uterine stump. This clearly shows that the disease can be entirely extirpated from the uterus by the minor operation, but that it is difficult to eradicate it from the infected pericervical connective tissues. Were the difficulty in eradicating the disease from the uterus, or were the recurrence in the uterine stump, total extirpation would come to our aid; but the recurrence being in the pericervical tissues, total has no advantages over partial amputation. In operating for cancer of the vaginal portion, or of the cervix, the object should be to make the incisions as wide of the disease as possible.

NEW REMEDIES IN OPHTHALMIC PRACTICE.¹

By EDGAR A. BROWNE,

Surgeon to the Liverpool Eye and Ear Infirmary.

THE list of actual novelties for the past year is not long, but one or two points of practice may be advantageously compared. Scopoline (*London Medical Record*, 1885, p. 251), derived from the *Scopolia japonica*, is recommended by Dr. Pierd'houty as a mydriatic. It is rather more energetic than atropine, acts more quickly, and its effects pass off more slowly. It is not easy to procure at present; some of the specimens proved entirely inert. Of the hydrochlorate of aconitia as a local anæsthetic, recommended by the same practitioner, I am compelled to report unfavourably. The anæsthesia seemed exceedingly slight and transient, but the well-known tingling and burning characteristic of aconite were complained of by the patients for some hours after the application; this, together with its extremely poisonous quality, to my mind, puts it out of court at once. Iodol has been recommended by Dr. Trousseau. It is a greyish powder, obtained by precipitation with iodide of potassium of pyrrhol, a product of the destructive distillation of mineral substances containing bone-oil (protein). Chemically it is described as a tetra-iodo-pyrrhol, and I am informed that its formula is $C_4H_4I_4N$; it differs from iodoform (CHI_3) in containing less iodine; its constitution seems to be more stable, as it is free from odour. As the clinical value of iodoform is probably due to the very slow and continuous disengagement of iodine, this stability is presumably a drawback. As a 10 per cent. ointment, it gives rise to no pain when applied in the same manner as the yellow oxide. A small piece may be placed between the lids and rubbed over the eyeball in cases of indolent ulcers following phlyctenulæ or ulcerations of the lids. It seems to me void of offence, but unworthy of praise. Two years ago, I drew attention, in this Section, to the value of a complete and prolonged irrigation of the conjunctiva, and especially the upper *cul de sac*, in cases of gonorrhœal ophthalmia. I prefer making the application with a lid-irrigator of my own design, but I have succeeded with extemporaneous apparatus. I still continue to use a solution of trichlorophenol, a potent germicide which, in a solution of one half per cent., has no ill-effects on the conjunctiva or cornea.²

More recently I have adopted the same method in the treatment of lacrymal abscess and blenorrhœa of the sac with excellent results. An abscess is opened (under an anæsthetic), the sac incised, and a full sized probe passed. After the probe, a gum-elastic catheter, smaller than the probe, is passed to the bottom of the duct, connected with an elevated reservoir by means of a long tube and a prolonged play of the phenol solution commenced. The catheter is pulled up gradually higher and higher in the duct, and turned round to irrigate every part thoroughly. The probing and irrigation are to be continued daily.

¹ Read in the Section of Ophthalmology at the Annual Meeting of the British Medical Association in Brighton.

² The absolute necessity of prolonged irrigation must be insisted on. Bacteriologists in laboratory experiments teach that exposure for a certain length of time is necessary to effect sterilisation, and we must remember that gonococci, or other germs, would be much more difficult to immerse on the convoluted surface of a mucous membrane than in the cultivation-medium of the laboratory.

Some convenient cannula-probes are made which may be employed if desired.³

The introduction of cucaïne has enabled us to resort to the use of the actual cautery, either thermic or electric, with great frequency. A comparison of the value placed upon its action cannot fail to prove instructive. In my own practice I accord it the first place in the treatment of hypopion-keratitis, a formidable affection, occurring frequently among the poor and ill-nourished, of whom stone-breakers may be taken as the type. These unfortunate creatures present the necessary combination of noxious circumstances. They are half-starved, exposed to the vicissitudes of climate, have chronic conjunctivitis, blenorrhœa or abscess of the sac—to this is added a blow with a fragment of stone, and suppuration of the cornea is established. It occurs in the middle layers, spreading centrifugally, and if not checked, destroys the cornea. Antiseptics have no effect in the early and remediable stage, the anterior elastic lamina is intact (or practically so) and prevents alike the ingress of the medicament and the egress of the necrosed tissue. The orthodox practice (Sæmisch, Teale) of incising the abscess merionally, and teasing out the slough with forceps, undoubtedly gives occasional brilliant results. Everybody must have noticed that the results are far less brilliant in the case of large peripheral than of central sloughs. But even a better effect may be attained by the use of the cautery. It must be applied carefully along the margin, and then with a few rapid touches over the substance. A clean, easily detachable eschar is left, and healing takes place with rapid absorption of the hypopion. This proceeding has the advantage over the median incision of not opening the anterior chamber and allowing the lens and iris to fall forward and give rise to synechia anterior.

As a practical point, it must be remembered that the cautery, whether thermic or electric, must be of a dull-red heat, just sufficient to char the tissues with which it is immediately in contact. If used too hot it causes an unnecessary destruction of uninfected tissue. The cautery may also be used effectively in doing peritomy for vascular keratitis, and is superior to the scissors.

Our information on the question of antiseptics in cataract-extraction is still unsatisfactory. It is a matter of familiar observation that the corneal wound in extraction is liable to suppurate, while incised corneal wounds in general are not particularly liable to that kind of action. Iridectomies very seldom go wrong in this way—accidental wounds very seldom go wrong—and even in hypopion-keratitis, when an incision is made through the base of the abscess, it is the incision that stops the suppuration and not the suppuration that attacks the wound. Assuming that suppuration is due to the introduction of pyogenic micro-organisms, it is obvious that one kind of wound is as much exposed to infection as another, and some peculiar conditions must be sought.

The conditions of healing in a corneal wound are (1) lavage from within outwards by escaping aqueous, tending to wash germs outwards, and, of course, preventing their entrance; (2) exact apposition of surfaces; (3) an aseptic condition of surrounding secretions; (4) absence of favourable soil for germs. These conditions are less perfectly fulfilled in extraction-wounds than in many others, and less perfectly since the introduction of cucaïne. The wound is necessarily large, and the secretion of aqueous is not sufficient thoroughly to wash it. Cucaïne still further diminishes the secretion of aqueous. In addition to the chamber after the removal of the lens, there is the space it occupied to be filled. If the cornea regains its convexity by its own elasticity, before the resecreted aqueous has filled this space, it tends to draw the conjunctival secretion inwards, and woe betide if this be not aseptic. It is under these circumstances that McKeown's method of removing sticky cortex by syringe or irrigation is likely to prove valuable. The outer flow will replace the defective flow of aqueous, and the inward suction action of the cornea is counteracted. Moreover, it removes the soft matter which forms almost a perfect soil for germ growth.

To render the conjunctival secretion innocuous has been the aim of all antiseptics. M. Panas so highly praised a solution of biniodide of mercury, claiming for it almost infallible powers in the prevention of suppuration, that I felt constrained to give it a trial. The solution is nominally 1 in 20,000; but, owing to the high atomic weight of the iodine, the amount of mercury is not much above 1 in 40,000.

Are we all to join M. Panas in his cry of "Eureka"? The solution is not sufficiently potent to destroy a virulent germ in a favourable

³ Trichlorophenol is a substitution product in which chlorine replaces a portion of hydrogen in carbolic acid. Carbolic acid $H_3C_6H_3O$. Trichlorophenol $C_6H_2Cl_3OH$. It apparently acts by the slow and continuous disengagement of chlorine. Its odour persistently clings to any tissue with which it has been brought in contact.