of children, pointing also to some singular intrauterine change. The latter disease, however, with care, is now easily cured. A very striking instance of this was given recently in the *ASSOCIATION JOURNAL*.

OPERATION FOR PTOSIS.

Mr. BOWMAN performed the operation for congenital ptosis on the 10th inst. The disease was so marked, that the patient, a poor boy, fell into the fire-place on his back one day while engaged looking up at the ceiling. The eyelids entirely covered the globe of the eyes. Mr. Bowman adopts a very peculiar form of incision in these cases, in the eyelid—not the usual one parallel to the tarsal cartilage, but two incisions something in shape of a letter A. He uses also a very delicate gossamer thread—a single hair of silk—like the finest thread of a cob-web: this answers every purpose, and prevents suppurative inflammation and deformity. Mr. Bowman lays great emphasis on the value of this single fibre of silk, as superior to all other forms of thread, for the ptosis needle.

EXCERPTA MINORA.

The case of ligature of the external iliac artery by Mr. HILTON, at Guy's Hospital (see *ASSOCIATION JOURNAL*, September 27), is doing very well, but the ligature has not yet come away.—Mr. FERGUSON performed the same operation on the 11th, at King's College Hospital, in the same manner, about an inch above Poupart's ligament.—A case of bad fracture of both legs, caused by the wheel of a wagon, fibula and tibia broken in both limbs near the ankle, and treated by Mr. STANLEY with gum and chalk and pasteboard from the beginning, has just left the hospital a perfect cure.—Mr. CURLING, in a case of bad epithelial cancerous growths of the lower end of the rectum, has been using with success the new form of caustic paste recommended by Mr. Langston Parker of Birmingham. It consists of one part of chloride of zinc, one part of chloride of antimony, and four parts of plaster of Paris, to make a paste. An interesting point in the use of these severe caustics seems to be, that they may be tried after the part is congealed by ice.—In a case of stricture of the rectum, Mr. Curling has also been using the wax bougies with sponge enclosed, together with warm water enemas. The effect has been satisfactory.—A very melancholy but instructive case of death from chloroform occurred during the present week at one of the Borough hospitals. K.

Original Communications.

ILLUSTRATIONS OF THE PATHOLOGY OF CANCER.

By J. ZACHARIAH LAURENCE, Esq., F.R.C.S.

PART V.

ON THE NATURE OF CANCEROUS DISEASE.

WE come now, finally, to the question of the *Nature of Cancerous Disease*. The most interesting, the most important question that here arises is, Is cancer a local, or is it a constitutional disease?

Let us, *in limine*, ask ourselves what we mean by a "constitutional" disease? It is a disease for which an individual has acquired a special aptitude, which subsequently, under the influence of an exciting (often perhaps unknown) cause, ends in the development of the actual disease itself, for the reception of which that aptitude was in the first instance an essential preparatory element. To take an every day illustration of such a constitutional aptitude: a child is scrofulous; he may grow up to manhood without any notable ailment; he then happens accidentally to sprain the ankle-joint; a specific tuberculous inflammation is lighted up; the cartilages ulcerate; the bones become carious; the whole joint disorganises. This leads perhaps to amputation; perhaps to the grave. A second child, of sound constitution, meets with the same accident at the

same age. A non-specific inflammation of the joint ensues; this subsides, and a slight weakness in the joint is the only vestige of his former accident. In the first case, a special impression is made upon the morbid action by a special constitutional crasis; in the second, no such crasis existing, no special consequences result.

A sufficiently broad line of demarcation has not been drawn between *blood* and *constitutional* diseases. What phrase is perhaps more in the mouth of every surgeon than "constitutional syphilis"?* Syphilis is a disease of the blood, but certainly no more a constitutional disease than typhus fever. Both are diseases due to the introduction of a morbid poison into the circulation. The one is a chronic, the other an acute disease. Both have their determinate series of symptoms, but we have yet to learn that either possesses, like the tuberculous constitution, the power of impressing on other pathological processes a special character (excluding, of course, from consideration the impressions pathological processes may derive from a general dyscratic state of the system).

The following are the facts in favour of the constitutional nature of cancerous disease.

(1) Cases of cancer are now and then met with which follow a most acute course, the tumours succeeding one another with a rapidity only explicable by a constitutional tendency to their production.

CASE. Acute Cancer: Multiple Tumours: Death. A dark complexioned young girl, 16 years of age, noticed a pimple on the palm of her hand, opposite the root of the little finger. It went on getting larger, till it reached the size of a small nut; and, a week afterwards, a second tumour formed on the inner side of the arm. She then entered the Middlesex Hospital, where a third tumour made its appearance in the axilla, and a fourth on the palmar aspect of the forearm, just above the wrist. Mr. Moore made an exploratory incision into the tumour of the palm, which then degenerated into a foul ulcer, with angry edges. It was at this stage of the case that I first saw the girl. The ulcerated part of the tumour looked towards the palm, and extended from about the root of the little finger nearly to the wrist-joint. On the dorsum of the hand, the tumour was covered by the skin, red and glossy from tension. The fifth metacarpal bone felt sound. She had suffered pains in the tumour, "like knives cutting in and out," but was sometimes comparatively free from pain. Her general health had never been good; she often experienced pains in the chest and right flank; her bowels were never regular; she was troubled with vomiting and sick headaches. She had never menstruated, nor felt any catamenial sensations at the monthly periods. After she left the hospital, a fifth tumour formed in front of the arm, two or three small ones below the bend of the elbow, several hard tumours the size of a bean under the skin of the mammary region, one on the forehead, one under the skin of the eyelid. All these tumours I saw myself, but I believe she had several others. During this period, she fell into a deep cachexia, and emaciated rapidly; before her death, she had cough, with bloody expectoration. Unfortunately, she came into the hands of a cancer-quack, otherwise I should have been enabled to have given a more complete account of this interesting case.

(2) In those distressing cases of highly vascular encephaloid growths, to which Hey applied his designation of fungus hæmatodes, especially as they occur in the limbs of young subjects, notwithstanding the most complete of all surgical removals—that of amputation above the proximal joint—the disease is almost inevitably certain to recur, often after an interval of apparent cure. I have seen several instances of this fact.

(3) It is by no means uncommon for scirrhus of the breast to recur months or years after an operation, not in the cicatrix of the operation wound, but in the neighbouring lymphatic glands.

* If it be admissible at all, it should be limited to the case of infantile syphilis.

(4) CASE. A woman had her breast amputated for an ordinary scirrhus. It was a hard, firm growth, cut with a clean section, which was of a translucent bluish colour, traversed by threads of an opaque buff (milk ducts). Some highly characteristic cancer-cells were observed in the growth. The operation had hardly been done four or five days before the disease returned in the skin above the operation wound. The secondary formation was removed; it was a grey, semi-transparent, gelatinous, highly vascular and hemorrhagic substance—in a word, *encephaloid*. The microscopic characters were those usually seen. She was discharged, with the operation wound cicatrised, in about three weeks after the last operation.

Such a case as this affords strong evidence of the constitutional origin of cancerous deposits. The secondary growth was of a totally different species of cancer to the primary one: hence the former was not a portion of the latter left by an incomplete operation, but would appear to have been called into existence by the irritation of the operation wound reacting upon a strong constitutional predisposition to malignant disease.

(5) The exciting cause of a cancerous tumour is often inappreciable: in the great proportion of cases, inadequate to account for its appearance. In this latter respect, cancerous disease bears a strong analogy to pyæmia. It is not improbable that this latter disease (and even possibly tetanus) may demand a prior special alteration of the general constitution for its actual production.

Turning to the evidence for the local nature of cancerous disease, we are at a loss to determine upon what facts such evidence rests.

(1) That cancerous tumours not uncommonly succeed some local injury? *Post hoc, propter hoc*. Admitting such an interpretation of the facts of the case, hardly an individual of the human race would be exempt from the fatal malady.

(2) Some authors have held that the secondary deposits of cancer originated in the first instance from the blood that had become infected by absorbing the cancer-blastema of the primary tumour. The doubtful, if not negative, results obtained in the attempts to inoculate cancer controvert this opinion. Several months ago, Dr. Harley and myself instituted experiments on this subject; and, as we intend publishing our results at a future period, I for the present refrain from saying anything more on the subject, than that the possibility of inducing cancer by inoculation is far from proved.

We are, in a word, firmly convinced that *cancer is a constitutional disease*: that a cancerous tumour may react secondarily upon the system at large, by infecting the blood with cancer-blastema, and so in a limited sense be itself a *local evil*, we are not prepared to deny. Indeed, under certain exceptional circumstances, there is every reason to believe that the cancerous diathesis may exhaust itself (die out) in the production of a single tumour; and this secondary source of contamination being removed by a surgical operation, the patient may be permanently cured.

CASE OF RUPTURE OF THE UTERUS DURING PREGNANCY.

By JOSEPH GRIFFITHS SWAYNE, M.D., Lecturer on Midwifery in the Bristol Medical School.

[Read before the Bath and Bristol Branch, September 25th, 1856.]

On Wednesday, May 7th, 1856, I received a coroner's order to examine the body of Sarah Williams, the wife of a shoemaker, residing at Pleasant Place, Clarence Road, St. Philip's. She was stated to have died during labour; and the relations imputed blame to the parties in attendance upon her. She was 37 years of age, had given birth to six children previously without any difficulty, and had also miscarried twice. Mr. Crosby Leonard kindly assisted me in the *post mortem* examination. The body was beginning

to decompose rapidly, although the examination was not more than twenty-four hours after death. The abdomen especially was much discoloured. Before opening the body, we made a vaginal examination, and found but little shortening of the cervix uteri. The os was high, and difficult to reach; it would but just admit the index finger. A small hand could be detected presenting at the os internum. On opening the abdomen, we found considerable extravasation of blood between the abdominal parietes and the peritoneum. The peritoneal cavity contained some reddish brown serum; the intestines were streaked with red lines of inflammation, and here and there slightly agglutinated; but the quantity of effused lymph was inconsiderable. The uterus had scarcely enlarged sufficiently to rise out of the pelvis: in front of it was a membranous bag, somewhat resembling the bladder; this bag was connected with the uterus behind and the abdominal parietes in front. In attempting to remove the parts, the bag gave way at one point, where it was very thin. We then found that it contained a fœtus of nearly five months' growth, and very much decomposed. A considerable quantity of blood was extravasated beneath the peritoneum covering the psoas muscles. On removing the parts and examining them, we found a rent in the anterior part of the uterus, where it joins the bladder. It was about two inches in length, and ran obliquely downwards from left to right, extending through the muscular substance, but not through the peritoneal coat. The hand and foot only of the child were contained in the uterus; the rest of it had escaped, together with the placenta, through the rent, and lay between the bladder and uterus, covered by the peritoneum which passes from one to the other. (See diagram.) The bladder was healthy, and contained very little serum. The other viscera were healthy.

a. Uterus. b. Bladder. c. Rectum. d. Sac formed by peritoneum containing the fœtus.

On making inquiry of the midwife who attended her in the first instance, I learnt that she had a very severe fall about three months before her death, and from that time complained at intervals of pain in the left iliac region. There was also a discharge, which was occasionally profuse, of a dirty offensive watery fluid. At the time of the accident, she considered herself to be seven months pregnant. From that time she appeared to decrease in size, rather than otherwise.

Mr. Parsons, who subsequently attended her, gave me the following history of the case. He first saw her between 9 and 10 A.M. on Sunday, May 4th, three days before her death. He was then informed that a midwife had seen her, and had gone away. She had at that time a slight bloody discharge coming from her. There were scarcely any pains properly so called, but rather an abdominal tenderness, which was increased on pressure. The os uteri was not sufficiently dilated to admit the tip of the finger, and