

clinical features of new growth can be deduced from a simple consideration of the play and balance of energy in a cell. The theory, tentative, like most theories of cancer, may be found interesting if only because it shows how many points in the course of a cancer can be explained without recourse to a specific cause. I have refrained from confining the theory to malignant new growth alone, for it is evident that other tumours would come within its scope, from the most malignant to those of very slow growth. The only index to the rate of growth is the difference between the normal and new cell wall in composition. The greater this difference the swifter is the growth or the greater the malignancy.

I am, Sirs, yours faithfully,

R. E. ROBERTS, M.B., B.Sc. Lond.

Crosskeys, Monmouthshire, April 3rd, 1905.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of April 1st Dr. E. F. Bashford, in a very interesting paper on the Growth of Cancer, lays a good deal of stress on the unsolved problem of the age incidence of the disease. For some time it has seemed to me that a factor in the production of new growths has been a rise in blood pressure. One could give several instances where tumour formation, both benignant and malign, has been preceded by high arterial tension.

Two cases will suffice to make clear my meaning. A woman, now aged 41 years, has been under my care for the last nine years. During that period I have seen her frequently for headaches of an intense nature, due apparently to high arterial tension. Drugs seem useless but leeches to the temple give some relief. She has also had to wear a pessary for prolapse of the uterus following her last confinement 11 years ago. The patient has seen several physicians and gynaecologists but without relief to the headaches. 18 months ago she developed a fibroid of the uterus which now reaches within an inch of the umbilicus. It is worth noting that before the tumour appeared the heart showed signs of dilatation. Recently the blood pressure by Hill and Barnard's sphygmometer registered 180 millimetres of mercury but such records are of small value unless its relation to the force of the heart-beat is considered. For example, with a very feeble heart-beat the tension might be relatively high, while the sphygmometer might register it as apparently low.

The other case was in a man, aged 72 years. Eight years ago when I saw him for a minor ailment one noticed that his blood pressure was very high and the arterial tone increased. A year later he came with a cancer of the lip, the exciting cause being a clay pipe. The growth was examined microscopically after removal and was certainly malignant. There has been no recurrence, though the blood pressure is still high, and the only change in habits is that the man has given up smoking.

In both these cases there were high arterial tension and also irritation, the one from changes in the uterus following the prolapse and the other from the clay pipe. Since blood pressure presumably tends to rise in all vertebrates in later life it may account for the age incidence in cancer. It is to the general practitioner that one must look to confirm or to refute this view, for, like myself, he has the opportunity to follow cases over long periods of time. As to why increased blood pressure might cause aberrant growth must be somewhat speculative; but if, as some maintain, high arterial tension is due to changes in the density of the blood plasma this would cause a change in osmotic pressure. A change in the normal osmotic pressure as a factor in the production of aberrant growth can be well seen in the eggs of the frog or sea urchin.

I am, Sirs, yours faithfully,

Formby, April 3rd, 1905.

ARTHUR C. WILSON.

THE TREATMENT OF HÆMORRHOIDS BY THE HIGH-FREQUENCY CURRENT.

To the Editors of THE LANCET.

SIRS,—As we have recently heard a great deal of the value of high-frequency treatment for internal piles I thought it might prove of value to record the following case.

On Dec. 24th, 1904, I was consulted by a gentleman, aged 51 years, suffering from internal hæmorrhoids, which were then inflamed and prolapsed. On Jan. 4th, 1905, the inflammatory condition having subsided, he was, at my request, examined by a surgeon on the staff of one of our special hospitals for rectal diseases so that the exact condition of the

parts might be ascertained before high-frequency treatment was commenced, which I was desirous he should try, as the case, to my mind, was a typical one for testing the value of this method and the patient was naturally anxious to avoid an operation. On Jan. 5th high-frequency treatment was commenced by a surgeon on the staff of the electrical department of one of our London hospitals, with the understanding that he might continue the treatment as long as he thought necessary and applied by whatever method he thought fit. On March 29th, the patient having had 32 applications, the surgeon said he could do no further good, even if he had done him any good at all. On March 31st he was again examined by the surgeon on the staff of the special hospital who had seen him on Jan. 4th. The surgeon informed us that the condition was practically the same as on that occasion and that an operation was as necessary now as it was before the high-frequency treatment had been commenced.—I am, Sirs, yours faithfully,

Wimpole-street, W., April 3rd, 1905. GEO. STEELE-PERKINS.

ABOUT AUTOGENOUS INSTITUTES.

To the Editors of THE LANCET.

SIRS,—I have noticed in the advertising columns of the medical journals lately statements of analysis issued from sources bearing the titles of "Institute of Hygiene," "Institute of Bacteriology," &c. I humbly submit that it is necessary at once sternly to reprobate this practice—namely, that a fortuitous congeries of individuals should elect to call themselves an "Institute" of Bacteriology or the like and issue certificates of commendation to impress the public or the profession. So far as regards the "Institute of Hygiene" I believe that the gentlemen composing it are of the highest probity and of the greatest eminence. Some of them I know, personally and by repute, and I have the greatest respect for their attainments. But it is obvious that those very excellences which may guard this particular "institute" from adverse criticism will be availed of by less scrupulous folk to foist other "institutes" into being. If we are to tolerate these what is to prevent any half dozen chemists from joining with a couple of medical men and announcing themselves as an "Institute of Pharmacology," which will be prepared to examine and to report (for a fee) on any pharmaceutical preparation? Or a few needy medical men combining with an architect or two and constituting an "Institute of House Hygiene," prepared to bless or to blame every article used in the house? The possibilities of prospective fraud are too awful to contemplate.

I am, Sirs, yours faithfully,

J. C. MCWALTER, M.D. Brux., M.A., D.P.H.

April 9th, 1905.

DANGERS TO THE OPERATOR FROM THE X RAYS.

To the Editors of THE LANCET.

SIRS,—An annotation in THE LANCET of April 8th, p. 945, on the above subject begins: "Though the injuries inflicted on the patient in the use of the x rays have been repeatedly recorded little attention has been directed to the dangers to the operator." Such a statement is, in my opinion, rather too sweeping, as many hospitals and also private workers take precautions to protect the operator from the influence of extraneous rays. At the London Hospital shields made of thick glass containing a high percentage of lead are used. The rays are allowed to fall only where they are wanted and the rule is to take radiographs in all cases, the screen being used only where the peculiar circumstances of the case render it necessary. Under the arrangements there it is considered to be practically impossible for the operator to become seriously damaged and if it does happen it will be due to his own carelessness in not availing himself of the means provided for his safety. That operators in the London Hospital have suffered severe injury in the past is only too true, but nothing fresh has happened since the introduction of the x ray shields over 12 months ago. This is a matter for congratulation considering that we have six sets of apparatus in constant use.

I am, Sirs, yours faithfully,

REGINALD MORTON,

Medical Officer in Charge of the Electrical Department,
April 11th, 1905. London Hospital.