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We print below the second instalment of a Lecture on "Recent Developments in the Treatment of Cancer," delivered by Dr. Stanley Wyard, M.D. Lond., Assistant Physician at the Cancer Hospital, Fulham Road, S.W., and Fellow of the Royal Society of Medicine, at the British College of Nurses, 39, Portland Place, London, W.

THE LECTURE,

(Continued.)

Every modern writer on the treatment of cancer emphasises the importance of early treatment. The earlier the disease is treated, the better the result obtained. Followed to its logical limit, this is obviously true, for it would take us to the pre-cancerous stage. Unfortunately, the early stages of many growths are not recognisable. At many situations, no symptoms of any sort appear until the growth is no longer early. On the other hand, there are many persons so terrified of cancer and the operation which will probably be advised when the diagnosis is made, that they refuse to seek advice. For these reasons, education, of which we hear so much nowadays, is unlikely, in my opinion, to effect material improvement in cancer statistics. Indeed, the medical profession seems to be obsessed with statistics these days, although statistics in medicine are probably of only the smallest value.

Statistics, too, are the province of the mathematician, while truth is no part of his province. The mathematician says, "If A be true, then B is also," but does not concern himself with whether or not A really is true. The medical statistician tends to go beyond his proper sphere and take some interest in the truth or otherwise of A—generally with disastrous results, for he has not the clinical knowledge necessary to determine the question. Nevertheless, by all means get the cases as early as possible, but do not allow this aim to blind us to the fact that to get the case early is always difficult, often impossible, and that consequently prevention is far more important than cure. Moreover, what is early ? Early in time, *i.e.*, immediately after the lump or other lesion is first noticed, is obviously of little use—in many cases, the disease has by this time spread widely. And what is the use of talking about getting the case early in any other sense ? It is impossible to get the case before anything abnormal is noticed.

There is a large number of different kinds of malignant growths-kinds which differ in their origin, their rapidity of growth, their manner of spreading, their mocroscopic They are commonly separated into two main structure. classes, viz., sarcoma and carcinoma, of which I show you illustrations. You will notice that sarcomata are generally more cellular than carcinomata, the latter consisting of larger or smaller strands of fibrous tissue surrounding columns of malignant cells, while the former consist almost entirely of malignant cells with very little fibrous tissue around them. In the sarcomata are large blood-spaces into which the malignant cells tend to penetrate, and so become scattered throughout the body. Entering the veins, these cells pass to the right side of the heart and thence to the lungs. Secondary growths in the lungs are thus extremely common with sarcoma. Carcinoma spreads chiefly by the lymphatic channels, spreading first to the nearest lymphatic glands, which they eventually destroy; and then to more distant glands. Extension, however, is not restricted to the lymphatics, but occurs to some extent by the bloodstream, though in this case the secondary growths tend to involve the liver and bone-marrow in preference to other tissues. Secondary growths in the bones are apparently far more common than used to be believed, and the more

careful the search for them the more commonly they are found. They often cause spontaneous fracture of the bones involved.

It should be noted that as a cancer grows no new bloodvessels are formed, so that the blood-supply of the central parts becomes steadily less. Before long it is quite inadequate for the needs of the cells and they die. Hence in a cancer of any size, the central parts of a deep-seated growth, the superficial parts of a surface growth, are found to be necrotic. In the latter case, the dead tissue is discharged and an ulcer forms, while the mass may more or less completely disappear. This process is responsible for many of the cures which have been reported. The mass has disappeared, the ulcer has healed over, and only a scar remains, but beneath this the narrow, growing margin of the original tumour persists with its actively growing cells which sooner or later resume their former ways and reproduce the mass.

Cancer "cures" have existed for many hundreds of years. Of the old cures, caustics are the chief, *e.g.*, arsenic. By their means the local growth is more or less extensively destroyed, but the spread of the disease is not in any way controlled. The employment of these substances is absolutely useless and is unjustifiable on account of the pain and suffering for which they are responsible.

Other remedies, such as violet leaves, are equally without scientific basis or practical value.

Cancer is the happy hunting ground of the quack. You can generally recognise him by the fact that he thinks the cure ought to be tried for the benefit of suffering humanity. He does not want to make anything out of it himself, but he will not tell you what is in the stuff. Since no one knows much about the subject, his gross ignorance does not stand out so clearly as otherwise it would, while the wretched patients, worn out by a slowly devouring disease, will cling to any hope and spend their last penny on the rubbish which any plausible knave may sell them. It is a remark-able thing that the average person would not dream of pretending to a knowledge of astronomy or law, yet considers that there is nothing in medicine which he does not know or cannot understand. The only person in the civilised world who does not understand everything about the human body and all the ills to which it is heir is the qualified medical practitioner who has spent a lifetime studying those problems. The time was when anyone of ordinary intelligence might, by application and observation, learn all that was known about a particular science, but that day is long passed. Every smallest branch of science has become so closely specialised that none can have more than a superficial knowledge of any outside his own special branch, and only by long years of study can he become proficient in that. Moreover, for the study of any branch of science, material is necessary and in medicine only the qualified medical practitioner can ever see a sufficient number of persons suffering from a given disease to enable him to make useful Nor is and accurate deductions from his observations. everyone capable of making such deductions even when the material is available. He must be trained to observe accurately, to recognise and avoid the errors and fallacies which may be encountered. The untrained observer is, as a rule, not only useless but dangerous.

And here a word may be said concerning experiments on animals. While these have elicited many valuable facts, the utmost caution is necessary in applying the conclusions drawn from such experiments to the conditions found in man. Many of the apparently malignant lesions of animals are in no way analogous to those of man. Recently some have been found which are strictly comparable, and it is quite possible that investigation of the effect of remedial measures upon them may prove of value in the treatment of the human disease.



