

testines has been effected by means of fragments detached from growth higher up the alimentary canal. I may just mention, without comment, the liability to cancer of orifices, the narrowings and flexures of hollow organs—in short, parts exposed to friction and other local damage.

*Geographical Distribution.*—Cancer is said to be more common in Europe than in any other continent. By some authors it has been thought to be more common in low-lying districts, especially near river banks, than in elevated regions. It has also been stated that in France cancer is more common in the country districts than in towns.

*Cancer a Specific Disease.*—Cohnheim's theory of the origin of new growths does not, I think, carry us very far towards explaining cancer. It is more applicable to the case of simple tumours, and, perhaps sarcoma. The epithelial cells of cancer have undergone a specific metamorphosis. Normal epithelium transplanted to an abnormal situation, as may occur accidentally in surgical operations, does not grow into a cancer. A piece of scirrhus cancer transplanted into a rabbit disappears; the thyroid gland of a sheep transplanted into a man is in like manner absorbed. What, then, is the specific force which not only causes cancerous epithelium to proliferate, but also enables it to maintain its existence against the disintegrating action of the invaded tissues? Sir Jas. Paget has made an interesting comparison between cancer and the group of diseases which we are accustomed to call specific. He points out that the members of this group differ from one another as much as any one of them differs from cancer. If we compare the characters of syphilis, tuberculosis and cancer we shall find they present certain rough and general analogies; objection may no doubt be raised to points of detail. In each, for instance, the initial lesion is often solitary and local. This is followed by general infection of the system, effected primarily by means of the lymphatics and afterwards by the blood vessels. The tendency of each disease, if unchecked, is to destroy life. In each, again, after a prolonged struggle, the disease may die out and the patient survive. In only one of these diseases has a specific parasite been conclusively demonstrated as the cause, but can there be reasonable doubt that, in the case of diseases so similar in their course and development, a similar cause will eventually be demonstrated for all three?

*The Specific Agent.*—It is hardly likely that cancer is caused by a bacillus, for its characteristic structure is very different from that of the lesions occurring in those diseases which we know to be caused by bacilli; but it is quite conceivable that protozoa living in the cancer cells might determine their proliferation, and by means of

their toxic products exercise a more extended influence than the actual number of parasites would account for. I shall be told, I know, that the secondary deposits of cancer are all grafts from the primary one, and that the supposed parasite, if it be a *vera causa*, ought, acting by itself alone, to excite the disease in whatever situation it became implanted. The criticism is perfectly just. Let me try and state the parasitic theory a little more explicitly. It assumes that the association of the parasites with the epithelial cells, having once taken place, becomes permanent, both as regards the primary and the secondary manifestations of the disease; that epithelial proliferation alone does not constitute cancer; and that protozoa do not excite cancer in epithelial tissues unless favoured by a certain preparedness of soil. These assumptions, if proved true, would explain much that is obscure in the etiology of cancer. The theories of cancer are not few, and we may fairly ask: Does any of them give a better explanation of the cardinal features of the disease—of its pertinacious growth, its widespread generalization, its inexorably lethal tendency? I do not assert that the bodies which have been found in cancer during the last few years by many observers, and described as protozoa, are the cause of the disease. But a disproof of all connection between these bodies and the origin of cancer would not weaken the force of the general argument in favor of a specific parasite. Microscopic evidence alone will not settle the questions at issue. There is reason to believe, however, from evidence gained from the examination of specimens while still quite fresh, that some of the bodies described as parasites are at least living. What is necessary to make the evidence convincing is that the supposed specific cause should be shown to be capable of exciting cancer in an animal previously healthy, either acting alone or in presence of certain known concomitant conditions.—Dr. Catlin in the *Br. Med. Jour.*

#### TREATMENT OF MALIGNANT TUMORS BY INOCULATIONS OF ERYSIPELAS.

Dr. William B. Coley (*Am. Jour. Med. Sci.*) while collecting the cases of sarcoma treated at the New York Hospital during the past fifteen years, found a case that seemed convincing evidence that erysipelas possessed a powerful curative principle antagonistic to sarcoma.

Five operations had been performed within a space of three years. At the last operation it was found impossible to remove all of the tumor, and the case was considered hopeless. Two weeks after the operation a severe attack of erysipelas occurred, followed by a second attack shortly after the first had subsided. During the progress of the