

erysipelas the remains of the sarcoma entirely disappeared, the wound rapidly healed, and the patient remained well seven years afterward. The diagnosis in this case had been repeatedly confirmed by well known pathologists, and there was no possibility of attributing the cure to any other cause than the erysipelas.

If erysipelas, a disease produced by a specific organism, could cure a case of undoubted sarcoma when occurring accidentally, it seems fair to presume that the same benign action would be exerted in a similar case if erysipelas could be artificially produced.

Dr. Coley applied treatment to ten cases which he has reported in detail. In addition to his own cases he has collected and tabulated all the reported cases of carcinoma and sarcoma in which erysipelas, either spontaneous or artificial, intervened. It is upon a careful study and analysis of these cases, as well as upon the more practical experience derived from his own cases, that his conclusions are based.

We find a total of thirty-eight cases of malignant disease in which an erysipelas has occurred, either by accident or intent. Of these thirty-eight cases the erysipelas occurred accidentally in twenty-three cases, and was the result of inoculation in fifteen cases (including Dr. Coley's own); seventeen cases were carcinoma, seventeen cases were sarcoma, four either sarcoma or carcinoma. The immediate and final results were as follows:

*Carcinoma.*—Of the seventeen cases three were permanently cured. In addition, one case of probable carcinoma was well five years after the attack of erysipelas. Of the remaining thirteen, ten showed improvement, which, although temporary, undoubtedly added to the life of the patient in most cases. One case died, as a result of the erysipelas, on the fourth day.

*Sarcoma.*—In sarcoma the curative action of the erysipelas was even more marked. Of the seventeen cases of sarcoma we find seven, or forty-one per cent., well and free from recurrence from one to seven years after the attack of erysipelas. In addition to these seven cases there is a probable sarcoma of the breast, that was cured.

Ten of the remaining eleven showed more or less marked improvement, in some cases the tumor entirely disappearing, and not recurring for several months. One case died as a probable result of the erysipelas, which was in this instance accidental.

In nearly every instance the tumor was not a primary growth, amenable to operative treatment, but either a recurrence after operation had been tried and failed, or from its nature inoperable.

*Conclusions.*—1. The curative effect of erysipelas upon malignant tumors is an established fact.

2. The action upon sarcoma is more powerful

than upon carcinoma, in about the ratio of three to one.

3. The treatment of inoperable malignant tumors by repeated inoculations of erysipelas is both practicable and not attended with great risk.

4. The curative action is systemic, and is probably due chiefly to the toxic products of the streptococcus, which products may be isolated and used without producing erysipelas.

5. This method should not be employed indiscriminately until further experiments have proved its limitations.—*The Atlanta Med. and Surg. Jour.*

## THE EARLY DIAGNOSIS AND PRACTICAL SURGERY OF CANCER.

Herbert Snow, M.D., London (*Am. Jour. Med. Sciences*): Great stress is laid upon the importance of early diagnosis. Early diagnosis, while difficult, can be greatly aided by remembering that "malignant lesions are especially prone to attack degenerating organs and degenerating people. With the exception of a numerically small congenital group of tumors which I have elsewhere classified under a special term, *blastoma*, and which mostly differ from ordinary cancer in rising spontaneously, malignant new growths are almost entirely confined to women above the age of thirty-four, to men past forty. Further, they appear in organs which have fulfilled their purpose and are undergoing devolution, or else intestines whose vitality has become conspicuously impaired."

Every tumor first noticed in the breast at or after the thirty-eighth year epoch is, in the great majority of cases, principally malignant; in the remainder it is certain sooner or later to become associated with malignant features in one form or another. From this sweeping rule, the most simple cyst within the gland parenchyma, a dilated acinus or dilated duct is not exempt.

Again it is laid down as an axiom that no average species of malignant tumor in the adult ever appears without an adequate and generally ascertainable cause.

About 11.7 per cent. of cases of cancer of the breast follow sudden injury—a blow or fall; the remainder are consequent upon some agency of a neurotic character impeding the normal devolution of the mamma.

Dr. Snow lays great weight upon "mental distress." He states that he has "known of one or two cases" follow an attack of influenza.

These statements cannot be accepted as in any way proven, although they should be given careful consideration as coming from a man whose opportunities for observation in this disease have been exceptionally great. The mere fact that a cancer was first noticed shortly after an attack of