Pathologists and clinicians are unanimous in the opinion that the treatment of cancer is applied to best advantage in the early stages of the disease. No one, however, so far as I know, has yet produced a test by which such early stages of cancer can be recognized clinically.

The first question which arises is: Just what is an early cancer? At the moment, I shall say nothing about microscopic criteria but rather confine my remarks to two very practical clinical criteria, i.e., the size of the growth and whether or not the regional lymph nodes are involved. With these two things in mind I began a series of observations many years ago. From 1918 to 1931 I measured the size of all surgically removed cancers and noted the gross and microscopic frequency of regional lymph node involvement. Here I shall confine myself to cancer of the stomach, colon, and breast, since these are the most frequent sites of the disease. Among my series of 7179 resected specimens (1918–31), there were 1568 cancers of the stomach, 2354 of the colon, and 3257 of the breast. The average sizes of these were, respectively, 6.1 cm., 6.4 cm., and 3.2 cm. in the largest diameter. The percentages with lymph node involvement were 53, 38, and 62.

From my own anatomical experience and from postoperative clinical results I would not say that cancers of such average sizes and with such high percentages of lymph node involvement were in the early stages, but rather far advanced. I therefore chose 2.5 cm. as an arbitrary figure for hypothetical earliness, hoping that such cancers might prove to be really early and amenable to successful treatment. I was interested also in finding out just how frequently the medical profession recognizes early cancer, if 2.5 cm. represents that stage. Considering the fact that operation is not done in 30 to 50 per cent of the cancers of the breast, 42 per cent of those in the colon, and 75 per cent of those in the stomach because they are hopeless and inoperable, and in view of the fact that only 6 per cent of the operable gastric cancers, 3.2 per cent of the colonic cancers, and 29 per cent of the mammary cancers measure 2.5 cm. or less, I am not very proud of what we are doing at the moment. When, however, these figures are compared with what was, or rather was not, done twenty-five years ago, I feel certain the profession has a right to pride.

Recently I have studied another series of 2155 cancers: 411 of the stomach, 1061 of the colon, and 683 of the breast. The frequency of operability and lymph node involvement has not changed significantly. In this last series (1932–37), 6.4 per cent of the gastric, 4.3 per cent of the colonic, and 35.5 per cent of the mammary cancers are 2.5 cm. in diameter or smaller. Although these percentages are higher than in the first series, they are not much higher.

1 Read before The American Association for Cancer Research, Atlantic City, May 2, 1938.
and may be within the normal range of yearly variability. In this series of 2155 cancers, 22.5 per cent of the small (2.5 cm. or under) gastric cancers, 17 per cent of the colonic cancers, and 40 per cent of the mammary cancers had lymph node involvement. Apparently, then, it is not safe clinically to consider these cancers as small. In view of this, I studied the mammary cancers measuring 1.0 cm. or less in diameter. These constituted 7.6 per cent of all of the operable mammary cancers and 25 per cent of them had lymph node involvement.

Now, a hopeful factor in the cancer problem, as I see it, is that we can find and have found cancers relatively much smaller than we did twenty-five years ago. In this whole series 1412 relatively small cancers have been removed, 1187 of the breast, 97 of the colon, 128 of the stomach.

An important clinical fact in this series of small cancers is that none of the gastric and colonic cancers and only a few of the mammary cancers had signs and symptoms pathognomonic of malignant growth. Had the clinical diagnostic symptoms and signs of the textbooks been adhered to, practically none of these would have been diagnosed as cancer; they would have been allowed to wait and become much larger before being recognized and treated. In fact, most of the patients were being treated for some other condition. The true state of affairs was discovered only because two rules of procedure are followed in our Clinic: (1) All patients with gastric and intestinal disturbances receive x-ray examinations after all other tests and examinations have been tried. (2) All mammary lumps or irregularities that do not quickly disappear spontaneously are removed locally by excision (not incision) for immediate gross and microscopic examination.

That so many cancers have been discovered relatively early and given a better chance for cure is very hopeful in view of the fact that the average size is so great and such a high percentage are inoperable when first seen in consultation.

These facts show that the medical profession is beginning to disregard textbook signs and symptoms which are supposed to be pathognomonic of cancer. There are no pathognomonic signs and symptoms of early cancer; and in the absence of any specific diagnostic tests a very much increased general use of suspicion, endoscopy, roentgenoscopy, biopsy, and surgical exploration is demanded for the early recognition and cure of the disease.