Two of the most startling questions about the human hand now under investigation are: (1) Is the hand movement of a person with hidden cancer markedly different from that of a healthy person? (2) Is it possible for a specially trained diagnostician to "see" cancer in a person's handwriting two to five years before a single symptom of the disease appears?

Cancer diagnosis by a handwriting test has been the life work of a virtually unknown Viennese handwriting expert name Alfred Kanfer, now a research associate at the Handwriting Institute in New York City. A gentle, soft-spoken, slightly built man, Kanfer has been stubbornly fighting eminent skeptics over his graphoanalytic diagnosis of cancer since 1932.

By 1935, a Viennese medical journal had published a report on his analysis of 500 cancer cases. In the series, he was 80 percent successful in discriminating malignancies from noncancerous cases. Once, in a study he made at an old-peoples' home in Vienna, he was able to detect cancer 18 months before surgeons found a tumor in the patient; on another occasion he diagnosed cancer four years before the patient died of it.

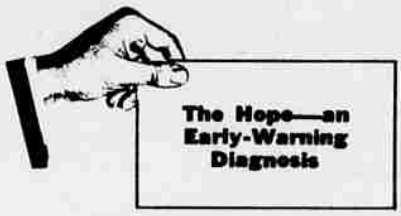
Hitler's persecutions forced Kanfer to flee Europe. In New York, he had to start all over again, and it was not until 1949 that he interested the Hospital for Joint Diseases in forming a special committee for research on the link between handwriting and cancer. The committee was headed by Dr. Daniel Casten and worked under Dr. Henry Jaffe's supervision. Initially, correct diagnoses were made in about 80 percent of cancer cases—but false positives occurred in about one-quarter of those examined.

It was only in ensuing years, with additional cases and expert opinions, that an important fact emerged. *A number of patients who had been classified as "false positives" later turned out to have cancer!*

Dr. Casten recalls a woman of 53 who was discharged from the Hospital for Joint Diseases in 1947 after treatment for a supposedly benign growth in her left breast. Her signatures in the handwriting test showed signs of malignancy. But her case only added to the distressingly large "false positive" group—*until* she was readmitted in 1953 with unmistakable cancer in the same breast. Dr. Casten says mildly, "That was the sort of case that kept us going."

If the cancer centers now engaged in studies of the Kanfer test report favorably, strenuous efforts undoubtedly will be made to perfect it. The significance of a test for cancer that merely requires a person to sign his name to a slip of paper certainly would be tremendous.

Even if proved valid, the test would not tell doctors where the cancer is located, however. It merely would alert them to the fact that the disease is present somewhere in the body in an early stage. The problem then would be to track it down while it still could be treated surgically.



The Hope—an Early-Warning Diagnosis

In comparison with the studies on handwriting, the medical aspects of palm reading or dermatoglyphics (examination of lines on the palm) are relatively recent. Palmistry's lineage dates back to the earliest Chinese and Greek civilizations, and its early history is as disreputable as graphology's.

But in the 1950s, several groups of scientists reported that they could correlate changes in the configuration of certain lines in the palm of the hand with Mongolism, a chromosome abnormality damaging the brain. During the development of the fetus, the palm lines are determined at about the 13th or 14th week after conception. They result from variations in the thickness of the skin tissues and their attachment to the muscles beneath. At Tulane University, Dr. Harold Cummins, an anatomy professor who pioneered in the field of dermatoglyphics, reached the point where he could recognize Mongoloid retardation with 95 percent accuracy by analysis of palms.

The complicated structure of the heart is completed by the eighth week of the infant's life in the womb. This is close enough to the palm development so that a group of Tulane University medical researchers wondered whether factors that distort the heart's delicate structure might also change the lines in the hand.

The Probability—Hands May Become Trusted Reflectors of Health

Tulane's Dr. Alfred R. Hale and his colleagues chose to examine the important line of the palm which forms an arc with a radius about 1½ inches from the base of the thumb. This line forks to form what is known as the axial triradius about an inch from the juncture of hand and wrist.

Examining 157 patients with inborn heart defects and 143 with heart conditions acquired in later life, the investigators found that the single division of this line was the rule with those whose hearts were normal at birth. But in most of the patients whose heart valves or chambers were malformed at birth, the palm line forked at one or two additional places.

Conceivably, inherited heart defects may be pinpointed through palmistry earlier, when remedial actions would be more effective.

A fingerprint study at Ann Arbor, Mich., still in its early stages, appears to link schizophrenia with an inherited vulnerability to mental illness.

Three medical researchers there have discovered mental patients have more abnormal whorls, arches, and loops in their fingerprints than those of "normal" prints on file at police bureaus. The doctors believe that such aberrations of fingerprints offer the chance of advance detection of persons susceptible to a number of illnesses aside from schizophrenia.

In any case, with bread molds, Indian snake roots, hypnosis, and other supposedly "superstitious remedies" well-established as medical tools, the day of scientific hand diagnosis seems finally to have come.