

Heading off A Dangerous Killer

One Scientist's Search for Ways to Predict, and Avoid, Cancer

By Christopher Hosford, LE Magazine October 1997

The expression "forewarned is forearmed" is perhaps nowhere more critical than in regular examinations for cancer. While much has been accomplished in treating cancer, including the use of alternative and natural therapies, experts are unanimous that the earlier cancer is detected, the better chance any treatment has of being effective.

Unfortunately, many cancers are discovered when a patient first complains of pain or other discomfort, or, in the case of breast cancer, when a woman discovers a suspicious lump and then undergoes a biopsy. This may or may not be in time for effective treatment.

Any physical discomfort or worrisome evidence may signal that the disease already is developing, even before there is a manifest, palpable indication. Moreover, the trauma of surgery often is required in order to locate and evaluate a growth, and to confirm a suspicion of cancer.

Now for the good news. Scientists have shown that a variety of "tumor markers" that show up in the blood correlate with the presence of certain types of cancers. When combined in precise ways, says Dr. Emil K. Schandl, a clinical biochemist and oncobiologist in Hollywood, Fla., a battery of specific blood tests can detect with remarkable accuracy the earliest presence of cancers in the body, well before a person experiences discomfort, lumps or other traditional signs or symptoms.

Schandl's groundbreaking research has enabled him to merge several tumor marker tests into a Cancer Profile. He has tested thousands of patients with his profile, with accuracy greater than 90 percent. When a patient is actually being treated for cancer, Schandl's tests are used to monitor the success (or ineffectiveness) of ongoing cancer therapy.

"Most of the current procedures that look for tumors examine various organs via X-rays, CAT scans, MRI, nuclear medicinal radiation or surgery," says Schandl. "I always thought that there must be a less-damaging, less-invasive way of looking at a person's insides. That is how I conceived the idea of developing a cancer profile."

Just as intriguing are the predictive abilities of Schandl's trademarked Cancer Profile. He says that the Cancer Profile (or CA Profile) can, in essence, predict the body's propensity to develop cancer years down the road.

Rather than giving patients frightening information they would rather not have, the tests give people a second chance to change their lifestyles and to avert the dangers ahead. A changed lifestyle could include better nutrition, more exercise, dietary supplements, enhanced self-esteem, and meditation to "clean the mind," Schandl says.

"As I see it, this re-evaluation means to choose life," says Schandl, a native Hungarian, who came to the United States following the short-lived heroic revolution against Soviet domination in 1956. "There are two paths, one is leading to life, the other is to death. If you don't know which path you are on, that's choosing death. Life is a commitment! Choose life!"

A Long Search

Schandl's Cancer Profile is based on the premise that changes occur in the human body during its transformation into a cancerous state. He developed his battery of tests after a great deal of reading, testing and experimentation at the Howard Hughes Research Institute in Miami, and at local hospitals in South Florida.

One marker is human chorionic gonadotropin, or hCG, a hormone associated with pregnancy, which Dr. Schandl calls "the pregnancy and malignancy hormone." It has been confirmed in multiple studies that the body shows elevated levels of hCG when the patient is suffering from cancer of the respiratory system, breast, uterus, liver, stomach, or other organs or sites. This hormone test is not organ- or site-specific. It will reveal, however, either that cancer is already present, or that biochemical or genetic changes have begun to occur that may lead to cancer. Significantly, according to an early report by Dr. Navarro, M.D., "Elevation of urinary hCG [can] be detected much earlier than when the tumor [becomes] apparent," (Jour. Philippine Med. Assoc. 36, 425-432, 1960.) Schandl says, however, that his technology is several thousand times more sensitive than Dr. Navarro's urine test, and that hCG has "a tremendous value in early cancer detection."

Schandl has observed marker elevations in his patients as many as 10 to 12 years prior to diagnosis. "Knowing that the developmental process of cancer takes 10 to 12 years, one may be able to detect the very beginning of cancer development," he says, "allowing plenty of time to make lifestyle adjustment corrections."

Since hCG also is the pregnancy hormone, in some cases that has to be ruled out. In pregnancy the hormone level rises very rapidly in the blood, so by retesting within a short period of time one can observe a sharp increase. This is not the case in cancer, where the level may rise slowly or remain constant.

Schandl notes, "One thing may be sure-if we find this embryonic pregnancy hormone in a 45-year-old male or an older female, they may eventually be diagnosed with cancer."

A drawback may be that hCG elevation will not indicate tumor location. Schandl's view is that the metabolic approach to cancer therapy is treating the entire human: body, mind, and spirit, rather than identifiable sore spots.

Associated with hCG is the presence of trophoblasts, a type of cell in pregnant females that connects the fertilized egg to the uterine wall. In fact, hCG is manufactured by trophoblasts. However, says Schandl, trophoblasts are inherited from our embryonic development in females as well as males, and they can be activated by a variety of injurious activities. These include a blow to a body part, viral and bacterial infections, toxic foods, toxic inhalants, radiation of any sort, and even stress or depression. All may potentially lead to cancer.

While many more studies have confirmed that hCG levels are elevated in the presence of cancer cells in the body, a caveat in using hCG alone as a tumor marker is that it may be present in super-low quantities that cannot be detected, even by existing technology. Therefore, Schandl has included other tumor markers as well.

Trouble Ahead

The uniqueness of Schandl's Cancer Profile is that it combines a number of tests which, by themselves, might not be overwhelmingly indicative, but together provide an impressive level of accuracy and predictability.

For example, Schandl's own early studies have shown that, when testing patients who were known to have cancer, 68 percent showed elevated hCG levels. When the measurement was for the enzyme PHI (phosphohexose isomerase, a tumor marker that regulates anaerobic cellular metabolism), levels were elevated in 36 percent of the patients; with the enzyme GGTP (gamma glutamyl transpeptidase, a sensitive liver enzyme), levels were higher in 39 percent of patients; and a test for CEA (carcinoembryonic antigen, a general tumor marker, originally designed to monitor colorectal cancers) showed elevated levels in 51 percent of patients.

But Schandl's method of increasing the accuracy of his tests through combination, more refined technology and current studies produces more persuasive percentages.

Looking at three cancer markers together (hCG, PHI, CEA), 221 positives in 240 breast cancer patients (92 percent) were detected. Of lung-cancer patients, 127 of 129 (97 percent) were correctly diagnosed. And with colon-cancer patients, 55 positives out of 59 patients (93 percent) were correctly identified.

Also in Schandl's Cancer Profile are tests peripherally related to cancer: thyroid stimulating hormone (TSH) that measures either low or high thyroid activity, and dehydroepiandrosterone sulfate (DHEA-S) that measures adrenal stress, immunity, and longevity tendencies. The rationale is that people with either low thyroid activity or low adrenal activity seem to be predisposed to cancer.

In addition, Schandl recommends testing the blood of men over 40 for PSA (prostate specific antigen) to detect prostate abnormalities, including cancer. A test for free testosterone also may be used for abnormal prostate cases. Schandl also recommends tests to detect the development of osteoporosis by measuring parathyroid hormone (PTH) levels.

Other tests that may be desirable include measurements of CA-125, a somewhat more specific test for ovarian cancer; CA 27.29; CA 15.3 a more specific test for breast cancer; and CA 19.9 for gastric/pancreatic cancers. Estradiol and progesterone tests may help to properly evaluate breast and ovarian cancer, Dr. Schandl advises.

Other Diagnoses

Some other tumor markers may be associated with other types of disorders. For example, elevated levels of GGTP are linked to diseases of the liver, pancreas and the biliary system (bile ducts and gall bladder); they may not indicate cancer at all. PHI has been associated with acute heart, liver and muscle disease, or with acute viral infection as well as cancer. It is quite easy to rule out the "other" conditions, Schandl says.

While Schandl is breaking new ground in combining tumor marker tests for increased accuracy, the literature is confirming his concepts. In a study reported in 1987, the tumor marker CEA

proved to be more sensitive in cases of metastasized bone cancer, while PHI was more sensitive in cancers of the organs. However, when CEA and PHI were combined, overall sensitivity was increased considerably [Paulick, R., et al., *Cancer Detect Prev*, 1987, 10 (3-4): 197-203].

"Other laboratories have not succeeded in copying the Cancer Profile due to the fact that mass production, improper specimen handling and less sensitive methods do not work," Schandl notes. Schandl's Cancer Profile gives early warning signs, but it also can be used to monitor established, existing cancers. Retesting can demonstrate whether treatment regimens are working, and how they can be adjusted. The tests also are important to establish a benchmark prior to surgery, Schandl says. With a retest later, one can determine the surgery's success in removing the tumor.

This also is borne out by research. For example, a study in the *Journal of Tumor Marker Oncology* (Luthgens M., et al., 1992, 7 [3]: 44) reports that men, who had had their diseased prostates removed had distinctly lower levels of both PSA and hCG, compared with those patients with tumors remaining. Clearly, lower levels of these markers indicate a procedure's effectiveness.

The marker may also serve as a warning signal of the prospect for renewed problems. A Japanese study reported in 1992 that a fragment of beta hCG, elevated in patients with cervical cancer, showed decreased levels in 24 out of 28 patients following successful treatment. However, of the other patients whose hCG levels remained high, half subsequently relapsed [Kinugasa, M., et al., *Nippon Sanka Fujinka Gakkai Zasshi*, Feb., 1992, 44(2): 188-94]. Again, the regimen may be clear: Doctors don't have to "watch and wait" for signs of a relapse when an accurate determiner such as tumor marker levels can predict success or failure, or the need for medical intervention.