

action of solar rays upon the human skin, particularly of light pigmented individuals, are satisfactory and convincing, when examined critically.

Issue must be taken with a statement made by Peller and more recently at least partially endorsed by Apperly, in which it is claimed that an exposure of the skin to the carcinogenic solar rays, while resulting possibly in the formation of a cutaneous malignancy, which, however, could be readily cured, conveyed a certain degree of immunity to or resistance against the development of the more dangerous, because inaccessible, cancers of internal organs.

Peller and Stephenson cited in support of their contention the statistical evidence that the cancer mortality of the personnel of the United States Navy between the ages from 25 to 64 was about 50 per cent lower than would be expected from age, sex and color-specific cancer rates of New York for 1930. These investigators claimed that this discrepancy was attributable to the fact that there was a higher frequency of lip and skin cancer among navy men and less internal cancer as compared with the civilian population, indicating that the external, solar cancers acted as a protective mechanism against the acquisition of internal cancers. Similar observations were made by Peller in certain types of industrial workers exposed to light and heat, as this occupational group showed a high death rate from skin cancer and a low cancer death rate from gastro-intestinal malignancy.

While not confirming the existence of such a relationship for regions with a mean temperature of above 42° Fahrenheit, Apperly suggested that the statistical evidence obtained from regions with a mean temperature below 42° Fahrenheit suggested that the less intense solar irradiation prevailing in such localities produced not only a certain immunity to cancer in general, but even to carcinoma of the skin. Whereas Peller and Stephenson proposed to utilize their observations for the prevention of internal cancers by producing intentionally easily curable malignancy of the skin, Apperly stated that it may be possible to reduce the cancer deaths by inducing a partial or complete immunity through an exposure of suitable skin areas to sunlight or to the proper artificial light rays of intensity and duration insufficient to produce an actual skin cancer.

In refutation of these assertions, and as a warning against the practical application of the proposals made by these investigators, it may be pointed out that a reliable and extensive amount of clinical and experimental evidence exists which indicates that the exposure of the skin to a carcinogenic agent does not *reduce*, but *increases* the chances for the development of an internal neoplasm. Warren and Gates, and Warren found that multiple malignant cancers occur more frequently than can be explained on the basis of chance and that this phenomenon may be explained by the action of some factor favoring the development of a malignant condition. Moreover, there was a higher incidence of non-systemic multiple cancers involving the skin and