

production of the precancerous lesions (keratosis senilis) found on the exposed parts of the skin during advanced age. This investigator also called attention to the great similarity existing between the cutaneous pigmentary and hyperkeratotic manifestations found in sailors and old individuals and the cutaneous changes observed in children suffering from xeroderma pigmentosum caused by a congenital hypersensitivity to solar rays, and resulting ultimately in the appearance of multiple carcinomas of the skin. Kyrle called the cancerous dermatosis, as seen in sailors, the xeroderma pigmentosum of the adults, representing the neoplastic end result of a cutaneous cancerous predisposition acquired by a prolonged and intense exposure to sun rays. Pusey advanced a similar conception when he noted that an excessive exposure to actinic energy produced an exaggerated picture of senile skin, which he considered to be caused, largely, by a less powerful action of solar rays exerted over a long period of years.

These observations made in sailors were extended later to members of outdoor occupations such as farmers and agricultural laborers (Dubreuilh; Lawrence; Hyde; Crawford; Molesworth; Larabi; Roffo; Peller and Stephenson; Haagensen; Findlay; Laurens; Dalons and Constantin; Sutton; Gasquet; White; Phillips; and others).

Hyde (1906) mentioned that in the sunny and dry regions of the Middle-west (United States) deaths from cancer of the skin were found mainly in males with outdoor occupations (farmers, boatmen, gardeners, nurserymen, vine growers, lumbermen, pilots, fishermen, steam railway employees, sailors). Agricultural laborers constituted nine-tenths of this group.

Sutton (1915) emphasized the fact that long continued exposure to strong sunlight plays an important part in the production of seborrhoeic keratoses or sailor's skin. This investigator noted that this skin condition was probably more common among the inhabitants of the sunny plains of Kansas than among those living in Newfoundland. Among 31 cases of skin cancer, Sutton observed, 16 were exposed to solar-rays to a high degree (farmers, stockmen, cattle men, oil operators, ranchmen, engineers, house painters, rural mail carriers, street car conductors). In a recent study of the histories of more than 1,000 cases of cutaneous malignancy observed during the years 1913 to 1938, Phillips found a particularly high incidence of these lesions situated on the exposed parts of the skin among persons with outdoor occupations who lived in the sunny climate of Texas, Oklahoma and New Mexico. Phillips concluded that there exists a causal interrelation between these conditions.

Similar relationships were reported by Apperly to exist for the inhabitants of those parts of the United States in which a relatively high mean temperature (above 42° Fahrenheit), and thus a rather intense solar radiation, prevailed. Peller and Stephenson, who analyzed the incidence of skin cancer among the personnel of the United States Navy, observed that epitheliomas occurred eight times as frequently as among the civilian population. The