

(1938). While the official obligatory notification of cutaneous malignancies from tar and its derivatives with the Home Office did not function properly during the first years following the introduction of this law, these reports have become increasingly reliable and complete in the past ten years, and thus reflect more and more the actual conditions existing in England and Wales. The data compiled demonstrate in an unequivocal way the high incidence of tar and pitch cancers in the British Isles. Inasmuch as there has not been any appreciable decrease in the number of observed cases (Sladden) in late years, precautionary and control measures so far taken seem to have been largely ineffective in checking the further occurrence of a preventable industrial neoplasm, which has involved since its first observation in 1892 a total of more than 1,400 individuals. This is quite an impressive figure, if consideration is given to the fact, that a considerable number of cases have obviously escaped observation and have not been recorded before the year 1925.

Koinuma reported from Japan the absence of cutaneous tar cancer among workers employed in industries producing and handling tar (1930). This observation was confirmed by Nagayo and Kinosita in 1940, who noted that occupational cancers have not been observed among the workers of the numerous gas, tar and tar by-products manufactures in Japan, because these workers were accustomed to great cleanliness.

Itoh (1925), on the other hand, mentioned the occurrence of cancer of the abdominal wall and thigh especially in women carrying a metal container (kairo) heated with charcoal, similar to the kangri in Kashmir, and carried under the cloak to keep warm. While it is usually contended that the resulting cancer is a so-called burn cancer, it appears to be more likely that the carcinogenic agent is a tarry distillation product of woodcoal, the action of which is enhanced by small and repeated burns. Kairo and kangri cancers are most likely mainly tar or soot cancers. Neve and Vaughan have recorded a great number of such cancers among the shepherds in Kashmir, who employ for this purpose an earthenware vessel filled with hot charcoal (1923, 1924, 1929, 1930). Within 50 years Neve observed more than 2,000 such kangri cancers in Kashmir.

Kangri is an earthenware bowl 6 inches or more in diameter and surrounded by a basket work with a wicker handle. This bowl is filled with hot wooden embers, which are covered with a layer of ashes, and sprinkled with water to prevent a too active combustion. This heating appliance is carried by the poorer class against the skin under a single garment similar to a smock frock. The temperature of the part of the vessel touching the skin may reach 150°F. The charcoal is generally prepared from the wood of the plane, willow, and witch hazel trees, and rarely from the pine, which is too smoky. Volatile combustion substances may possibly play a rôle in addition to burns. The common site of these cancers are the inner aspect of the thighs and the anterior surface of the abdomen below the umbilicus. Although a similar heating appliance,