

Wasels argued that if in the war only individuals of 60 years or more had participated, there would have been most probably a different outcome of this experiment, that is, an increase of tumor formation, while only of a minor degree, would have occurred. There is indeed some evidence supporting such a conclusion, while other data contradict it.

Hauser mentioned 8 cases of malignancy following war injuries (Werner; Schad; Blumenthal; Just; Albu; Iselin and Maier), which seemed to be acceptable. Luckow added two more cases of this type, both occurring after a prolonged latency period. More recently, Scheid collected all cases published in the German literature concerning the development of malignant tumors in gunshot wounds. There were 33 such cases (11 sarcomas, 13 carcinomas, and 7 brain tumors), of which 22 had occurred in connection with injuries sustained during the World War. Scheid supplied the information that with 3,710,371 gunshot wounds treated in German hospitals, 5.3 malignant tumors were observed per 1 million cases. This ratio was very much less favorable in connection with brain lesions, as there were 4 tumors per 10,000 brain injuries. Körbler as well as Pohl recently recorded additional cases of malignancy after gun shot wounds, while Reymann pointed out that an increase of cancer on the basis of old war wounds, especially in the form of fistula cancers and scar carcinomas, has been noted during recent years, i.e., approximately 25 years after the end of the conflict. Nevertheless, the relative rarity of cancerogenesis on the basis of gunshot wounds is strikingly demonstrated by these figures.

In contrast to the contention of Fischer-Wasels, that old individuals have a higher liability to develop traumatic cancers than young ones, Werner; Ophüls; and Schad asserted that traumatic neoplasms were found mainly in individuals belonging to the younger age groups, while Hauser noted their occurrence most often in persons of middle age. It may be doubted, whether the age factor possesses in this respect any actual significance, as a traumatic etiology is alleged unusually often for neoplasms occurring normally during the earlier periods of life (bone sarcomas, testicular carcinomas, and cerebral gliomas).

The sixth objection mentioned is correct when judged from a general statistical basis, but its intrinsic value becomes doubtful, if it is remembered that there exists a certain amount of evidence, indicating that individuals subjected to frequent occupational traumatization of the hands, fingers, and soles show an excessive incidence of cancers at these sites. It is naturally impossible to determine from such data the possible role which a single trauma, perhaps in connection with specific factors, may have played in such cases in bringing about a malignant tissue response.

In view of the uncertainties connected with the scientific and medicolegal appraisal of the causal role, which a trauma might play in the development of a cancer, several investigators (Segond (1907); Thiem (1909); Blumenthal