of this soft, jelly-like tissue may persist for a prolonged period at both ends of the spinal column in the occipital and coccygeal regions, rarely in other parts of the spine (Stewart and Morin; and Simon). It is from these vestigial foci that neoplastic formations usually originate. The presence of an embryonal anlage is considered, therefore, by some investigators as an essential requirement for the development of chordomas during later life (Fischer-Wasels). While occupational influences have not been incriminated as contributory factors in the genesis of these neoplasms, trauma has been accused of acting in such a role in several cases.

Peyron and Ardouin asserted that one-fifth of the chordomas observed had a traumatic genesis, whereas Andler and Schmincke noted that 35 per cent of these tumors were traumatically conditioned. Meyermann found, while reviewing 169 cases of chordoma, that a traumatic history was recorded in 14 instances (8 per cent). Roussy considers such claims unlikely, and Ewing pointed out that the conditions of origin as well as the long latency period do not favor a traumatic genesis of chordomas. Güthert expressed a similar opinion. The following citations may serve as an illustration of the traumatically conditioned chordomas:

Stanton reported a chordoma of the coccygeal region in a man, 62 years old, following a fall on the edge of a wagon-box, by which he hurt the base of the spine. The region was painful for a few days. Six months later the traumatized area became sore, and a swelling appeared 18 months after the accident. A sacro-coccygeal chordoma was removed 2 months afterwards. In a second case of allegedly traumatic chordoma, observed by the same investigator, a man, 35 years old, had sustained a fall on the head four years previous to the development of cerebral pressure symptoms (slowed mental reactivity, occasional vomiting, and headaches). A spheno-occipital chordoma was removed from the right temporo-frontal region. Since an antecedent trauma was noted in a great number of cases of chordomas reported by other investigators, Stanton concluded that it was reasonable to assume that, in some cases, trauma may be the exciting factor acting on an aberrant rest of notochordal tissue. Richards and King concluded, from the prevalence of chordomas in males, that trauma may play some role in the etiology of these tumors.

Peyron and Mélissinos, who collected the cases of sacro-coccygeal chordomas with an "incontestable" traumatic history, noted that the occipital chordomas which are usually more benign than the coccygeal ones, showed a traumatic relation less often than the latter ones. These investigators found records of 14 cases of sacro-coccygeal chordoma in which the available data indicated a traumatic causation. The latency period varied from two months to 20 years, but was, in 8 out of 9 cases in which this information was given, less than two years. The age of the individuals, which ranged from 22 to 78 years (58, 26, 54, 22, 56, 45, 49, 32, 39, 68, 78, 32, and 44), did not support, according to Peyron and Mélissinos, the assumption that an embryonic anlage with neo-