Hofmann ligament

The attachment of the posterior longitudinal ligament to the dura mater is poorly understood. Anterior dural ligaments connect the anterior dura to the deep layer of the posterior longitudinal ligament, but appear to be limited to the lumbar region and have been observed to have a craniocaudal orientation. Their function is reported to help in supporting and protecting the dural sac and spinal cord.

The spinal canal was opened exposing the dural sac, the spinal nerve roots incised, and spinal cord removed to mobilize the dural sac and gain access to Hofmann ligaments. The extent, orientation, length, and level of origin and insertion of the ligaments were documented.

The orientation of the ligaments changed from caudocranial (dura to posterior longitudinal ligament) at upper thoracic levels to transverse at the level of T8-T9 to craniocaudal at lower thoracic and lumbar levels, often with multiple ligaments being present at a single level. Ligament length varied from 0.5 to 28.8 mm and was positively correlated with vertebral level and negatively correlated with orientation.

Hofmann ligaments are present at most levels between C7 and L5; although most ligaments were limited to a single vertebral segment, some were observed to cross several segments [1)].

1)
Wadhwani S, Loughenbury P, Soames R. The anterior dural (Hofmann) ligaments. Spine (Phila Pa 1976). 2004 Mar 15;29(6):623-7. PubMed PMID: 15014271.