

Anatomic investigation of the connections of the iliopsoas muscle along its course from the 4th lumbar vertebra to its point of attachment at the lesser trochanter

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Objective

To examine the connections of the iliopsoas muscle along its course from the 4th lumbar vertebra to its point of attachment at the lesser trochanter.

Material and Methods

Study design:

- A baseline study in anatomy consisting of a systematic literature research and examinations of anatomical preparations.

Literature review:

- Search in electronic databases (Medline) as well as in the collections of libraries at the anatomical institutions in Munich and Nuremberg, Germany.

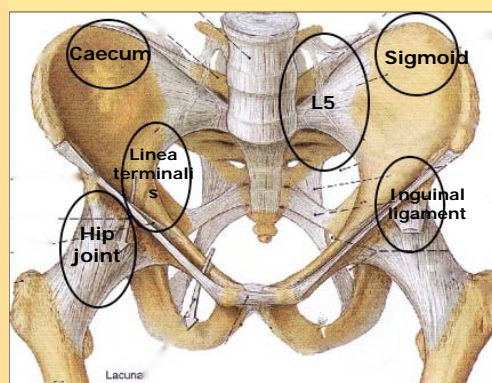
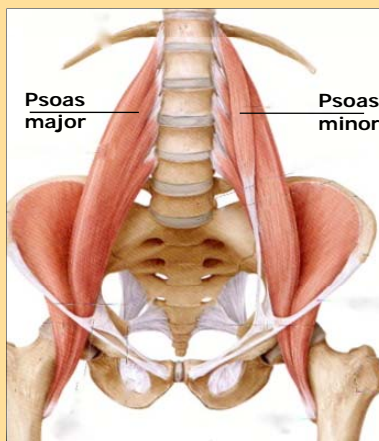
Dissections:

- Examination of 19 preparations (Friedrich-Alexander University Nuremberg); photographic and descriptive documentation.

The results gained from the literature research and the examination of the preparations were evaluated and processed for the use in osteopathic practice.

Background

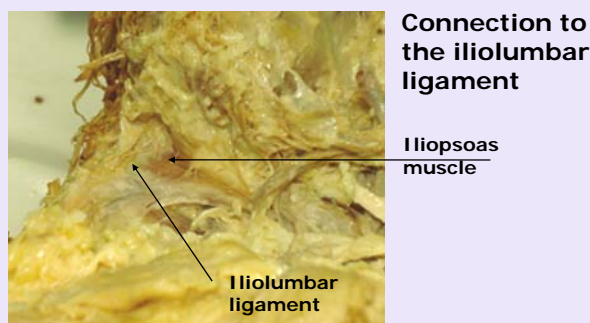
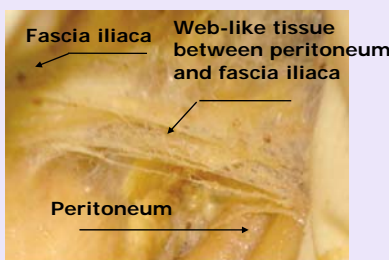
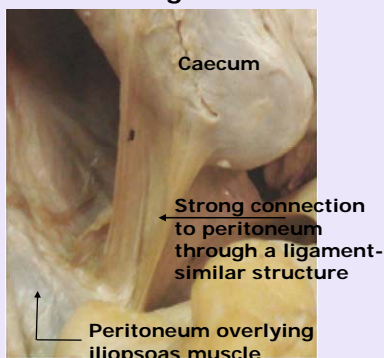
Possible connections of M. iliopsoas



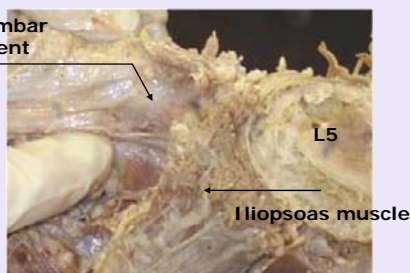
Results

- Some authors described the existence of a firm connection between the caecum, the sigmoid colon, the common iliac vessels, the inguinal ligament and the iliopsoas muscle. The preparations confirmed a connective tissue-like substance.
- Most of the literature sources examined illustrated a connection of the 5th lumbar vertebra, the iliolumbar ligament, the sacroiliac joint, the sacrum, the anterior, sacroiliac ligaments and the hip joint to the iliopsoas muscle. The connections found in the preparations in this area consisted of muscle fibers and fascial connections.
- In the current literature there was no description of a connection between the organs of the pelvis and the iliopsoas muscle. In this regard the fascial connection between the psoas and the pelvic fascia is considered an indirect connection. The same was true for the correlation of the iliopsoas muscle and organs of the lesser pelvis.

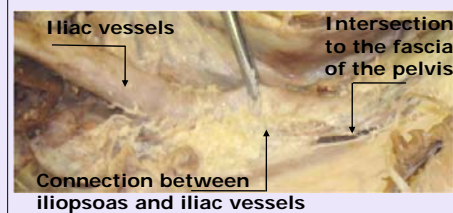
Connection to the caecum and to the sigmoid colon



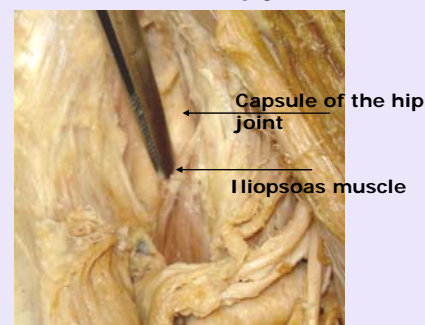
Connection to sacroiliac joint, iliolumbar lig., inguinal lig., and ant. sacroiliac ligg.



Connection to the iliac vessels



Connection to the capsule of the hip joint



Summary

The descriptions of the connections of the iliopsoas muscle found in the literature are partly inconsistent, and in some cases there is no information available at all. Nearly all structures examined in the anatomical preparations show connections to the iliopsoas muscle, part of which are direct, others indirect, via the fascia. From an osteopathic point of view it may be possible that all firm connections of the iliopsoas muscle which were found could transmit mobility restrictions to other structures.