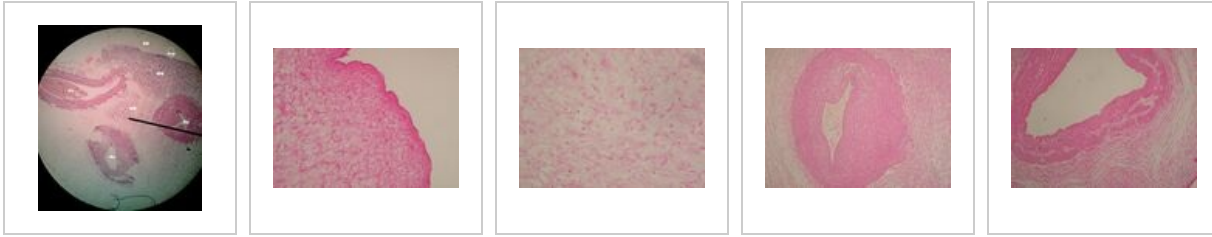
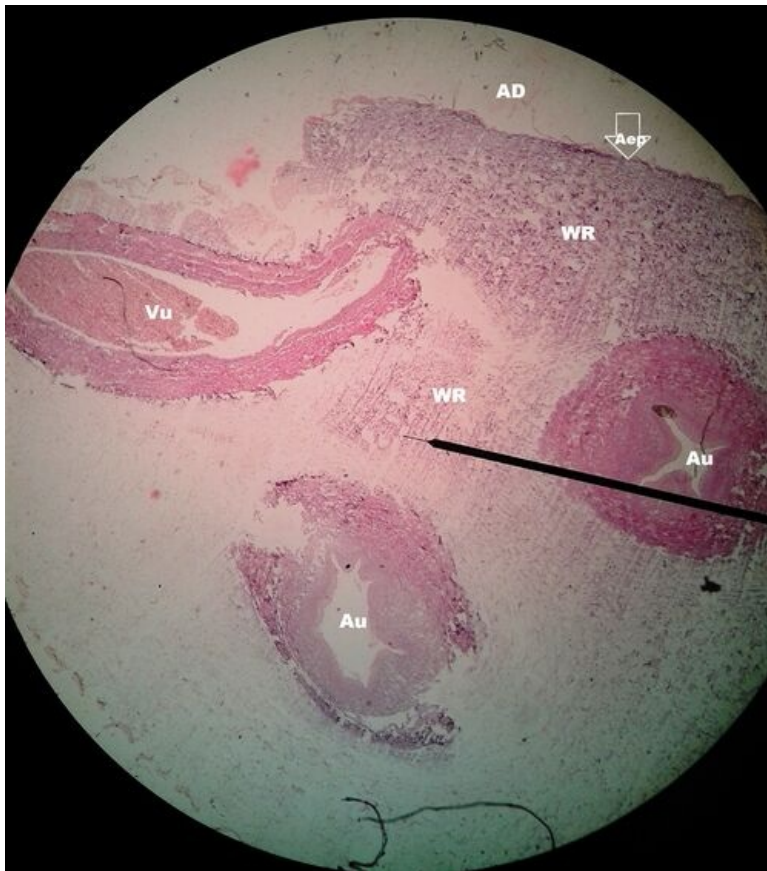


Umbilical cord (preparation)

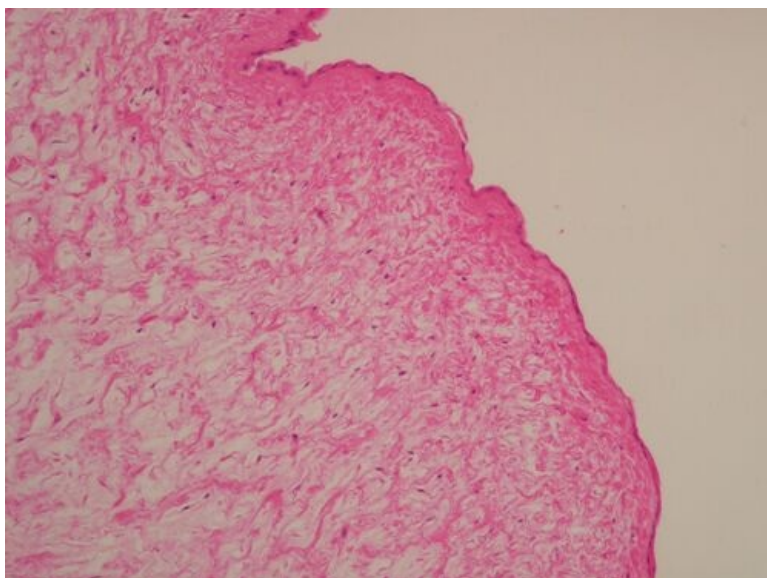
Overview



Preparation 1



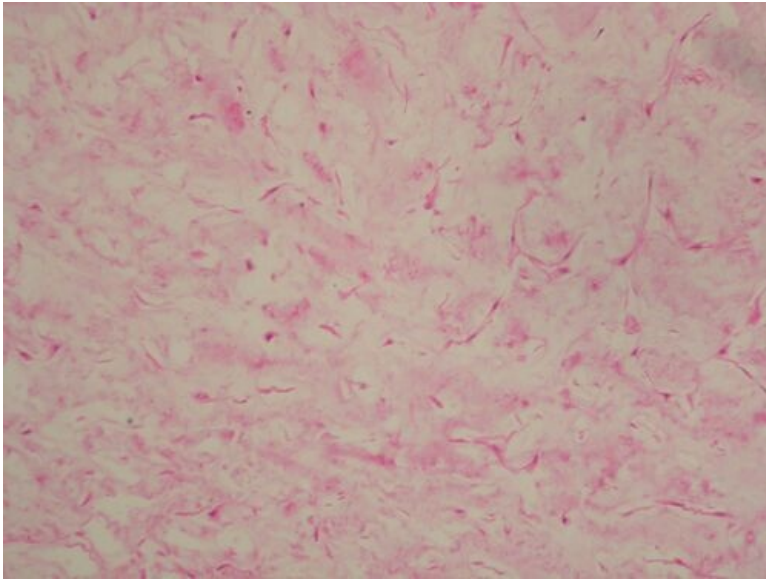
Preparation 2



Name: Navel HE

Description: The surface of the umbilical cord is covered with a single-layer cubic epithelium - amnioblasts. Beneath it is a jelly-like connective tissue (Wharton's jelly), which is made up of fibroblasts, collagen type V and extracellular matrix (mainly hyaluronic acid).

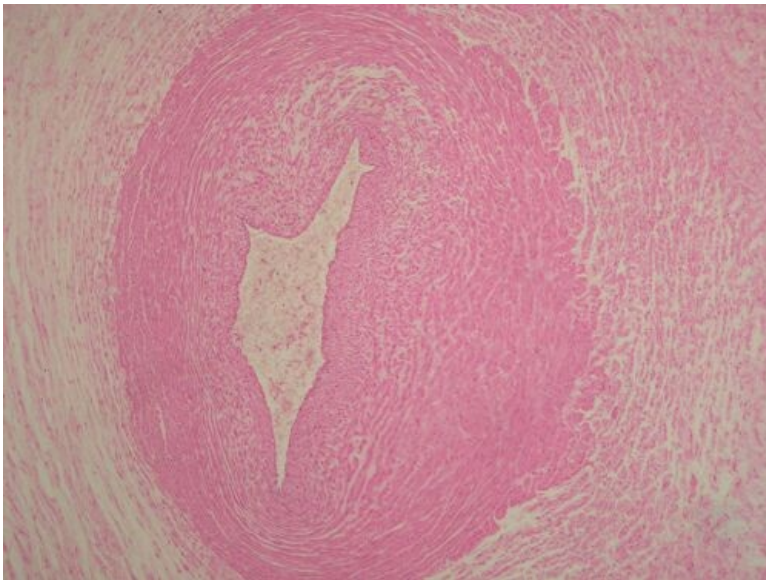
Preparation 3



Name: Wharton's Jelly HE

Description: Jelly-like ligament is an embryonic type of ligament. We find it in fetal tissues (e.g. the dermis of the skin) and fetal organs - umbilical cord, placenta. The extracellular matrix predominates in the ligament. There are relatively few cells and fibers. Hyaluronic acid is very abundant in the matrix, which binds water and conditions the jelly-like appearance of vivos.

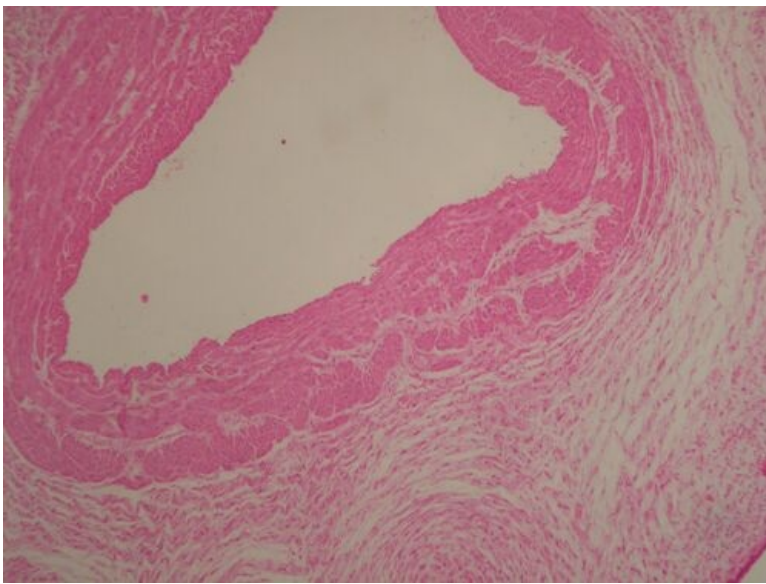
Preparation 4



Name: Umbilical artery HE

Description: Two umbilical arteries run in the umbilical cord. The structure of their wall is very specific and differs from arteries in adulthood. In addition to the endothelium, the intima contains small muscle cells and forms the so-called intimal cushions. Umbilical arteries do not have a lamina elastica interna, but contain a diffuse network of elastic fibers. They have a thick wall made up of two layers of muscle. The tunica adventitia is made up of gelatinous tissue.

Preparation 5



Name: Umbilical vein HE

Description: The structure of the umbilical vein corresponds to adult propulsive veins with an inner circular (t.media) and outer longitudinal (t.adventitia) layer of muscle cells.

Binders

Mesenchyme (preparation)

Umbilical cord (preparation)

Aorta (preparation)

Brown fat (preparation)

White fat (preparation)

Tendon (preparation)

Articular cartilage (preparation)

Epiglottis (preparation)

Desmogenous ossification (preparation)

Enchondral ossification (preparation)

Lamelous bone (preparation)

Links

- Cellular foundations of medicine module (3. LF)

Study materials for the preparation

- umbilical cord