

Glandulae vesiculosae

Glandulae vesiculosae, *vesiculae seminales* or seminal vesicles are bladder-shaped glands that are formed by a system of irregularly enlarged tubular formations. They represent accessory sex glands with dimensions of 4–5 cm x 1.5 cm and tubular diameters of 3–4 mm.

Both *glandulae vesiculosae* have ducts, *ductuli excretorii*, which connect with the *ductuli deferentes*, to form **ductuli ejaculatorii**, which end in the pars prostatica urethrae. They are located subperitoneally, laterally from the ampoule *ductus deferens*, under the immersion of the urethra into the fundus vesicae.

the **septum rectovesicale** participates in their fixation and they are cranially touched by the *excavatio rectovesicalis*.

Histology

Glandulae vesiculosae are composed of three layers:

- *tunica mucosa*;
- *tunica muscularis*;
- *tunica adventitia*.

Tunica mucosa is formed by numerous branching cilia formed by a single- to bilayered columnar epithelium. In the mucous membrane are embedded goblet-shaped cells, whose role is the secretion of part of the ejaculate. Part of the *tunica mucosa* is *lamina propria mucosae* consisting of loose collagenous connective tissue. Under the mucosa is located smooth muscle, ***tunica muscularis***, composed of two layers. Superficial, longitudinal and internal, circular. The last layer is the ***tunica adventitia***, which covers the *glandulae vesiculosae* and feeds the nerves and vessels.

Vascular supply

Glandulae vesiculosae do not have their own vascular supply, therefore arterial blood is supplied by arteries from surrounding organs, a. vesicalis inferior (a. iliaca interna), a. , **a. vesicalis inferior** (a. iliaca interna), **a. rectalis media** (a. mesenterica inferior – a. iliaca interna) a **a. ductus deferentis** (variant of spacing: a. vesicalis inferior/ a. umbilicalis /a. iliaca interna).

Deoxygenated blood is drained into the plexus **plexus venosus vesicalis** and **plexus venosus prostaticus**, which communicate with each other (v. iliaca interna). Lymph drains into the *nodi, lymphatici iliaci interni et externi*.

Anatomical innervation is provided by the **hypogastricus inferior plexus**.

Features

The main function of *glandulae vesiculosae* is the production of **alkaline secretions**, which make up more than half of the ejaculate (about 70%) and adjust the pH suitable for sperm. It contains fructose as an energy source for sperm movement, citrate, inositol and prostaglandins acting on the smooth muscle of the genital tract in women. testosterone is responsible for its secretion.

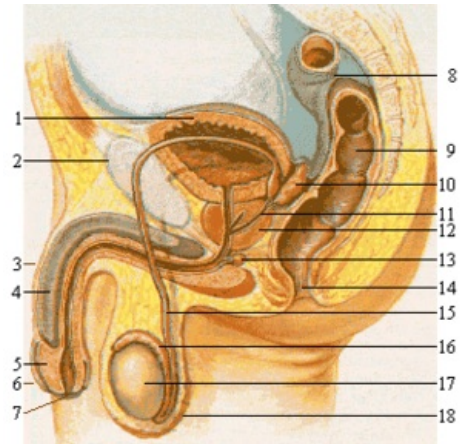
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- MARTÍNEK, Jindřich – VACEK, Zdeněk. *Histological atlas.* 1. edition. 2009. 136 pp. ISBN 978-80-247-2393-8.



Male genital system, 10 – *Glandula vesiculosa*

- JUNQUIERA, L. Carlos – CARNEIRO, José – KELLEY, Robert O. *Basics of histology*. 1. edition. 1997. 502 pp. ISBN 80-85787-37-7.