

Embryo implantation

Implantation of the embryo is possible in case of **fertilization of the follicle** in the ovary. Under normal conditions, the **blastocyst** implants in the endometrium in the upper third of the body of the uterus on its back or front surface - between the mouths of the glands. **The Endometrium** (mucous membrane lining the uterine cavity) is maintained in the secretory phase and also participates in the formation of the Placenta.

The Endometrium is in its peak secretory phase at the beginning of implantation. The tissue is soaked, the glands and vessels have a tortuous course. can be distinguished In this phase there are three phases of the Endometrium:

- surface layer *compact*,
- middle layer *spongiosa*,
- a thin deep *basal* layer (bordering the myometrium).

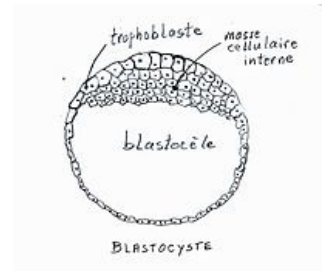
Subsequent progress

If the oocyte is **not fertilized menstruation** occurs. Contraction of endometrial arterioles causes ischemia in **the zona (stratum) functionalis** with subsequent degenerative changes in their glands and vessels. After a few hours, the contraction of the arterioles relaxes, a sudden *congestion* occurs, the walls of the vessels burst and there are **blood spurts** in the mucosa at the border of the pars basalis and pars functionalis. The Blood, that escapes washes away parts of the disintegrated pars functionalis. In the course of 3-4 days, the entire pars functionalis is *completely* removed from the endometrium, and only a weak *pars basalis* remains from the endometrium - it is supplied by the basal arteries forming a network, which is the source for the regeneration of the endometrium during the proliferative phase of the next cycle.

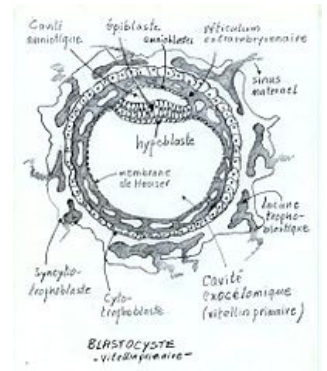
Links

Sources

- VACEK, Zdeněk. *Embryologie*. 1. vydání edition. 2006. 256 pp. ISBN 978-80-247-1267-3.
- SADLER, Thomas, W – SINHA, M.D. *Langmanova lékařská embryologie*. 1. české edition. Grada, 2011. 414 pp. ISBN 978-80-247-2640-3.



Blastocysta



Embryo