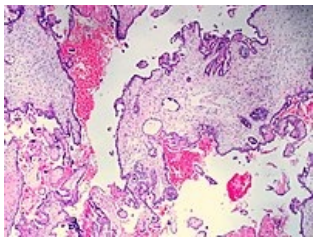
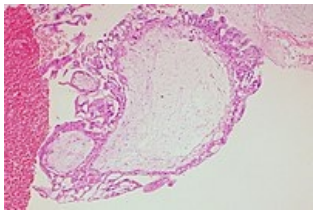
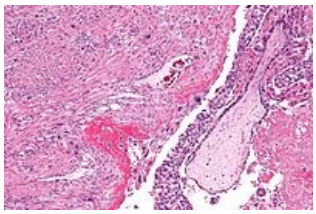
Gestational trophoblastic disease

Gestational trophoblastic disease[1] is a **fetal invasion of tissues** that defies normal control mechanisms. Normally, trophoblast invasion should resolve within **30 days** of termination of pregnancy (delivery, miscarriage, ectopic pregnancy)[1]. We distinguish *mola hydatidosa partialis*, *mola hydatidosa completa*, *mola hydatidosa proliferans* a *choriokarcinom*.


Partial mole


Complete mole


Proliferating mole

Partial (incomplete) hydatidiform mole

Mola hydatidosa partialis (MHP) it is created by the fertilization of an egg by two sperm at the same time (69,XXX; 69,XXY).The resulting triploid zygote has two sets of paternal and one set of maternal haploid chromosomes. It rarely becomes malignant. Clinically, there is irregular bleeding in the first trimester (due to developmental defects, the fetus rarely survives delivery, if it survives, it always dies after it). The treatment is vacuum exhaust and RCUI, dispensary and monitoring of hCG levels.

Complete hydatidiform mole

Mola hydatidosa completa (MHC) it is created by fertilization of **an empty egg** (0 chromosomes) by two sperm at the same time (46,XX; 46,XY),or by a single sperm that endoreduplicates (46,XX). Both sets of chromosomes are thus of paternal origin. The embryo cannot develop, the villi are avascular, edematous, with the appearance of "wine grapes“[1]. The image of "snowfall" is visible on the ultrasound[1]. Malignant in 4-8 %[1]. The treatment is vacuum exhaust and RCUI, dispensary and monitoring of hCG levels.

Proliferating mole

Mola invasiva (*mola proliferans*, *mola destruens*, MP) is the most aggressive. Biologically, it is of an uncertain nature. Treatment is vacuum exhaust and RCUI, 20% require chemotherapy.

Choriocarcinoma

🔎 *For more information see Germline tumors, Non-epithelial tumors of the ovary.*

Choriokarcinoma is an epithelial tumor of trophoblast cells. It metastasizes early hematogenously to the vagina, lungs, liver and brain[1].

It is the most treatable malignant tumor, it is treated with methotrexate or actinomycin D in mono- or polychemotherapy with curative intent in all stages with a good prognosis. The treatment is carried out in a specialized center.

Table

Criterion	Complete mole	Partial mole
karyotype	Diploid (46;XX/XY)	Triploid (69;XXX/Y)
Origination	Androgenic 2x sperm + egg without X 1x sperm + egg without X => duplication	Mixed 2x sperm + normal egg 1x 46 XX/Y sperm + egg
Embryo	Never!	Dies by 10. week
Villi	Avascular	Vascular
Trophoblast	Diffuse proliferation	Focal proliferation
Atypia (cellular)	Yes	No
hCG	Much increased	Normal
Choriocarcinoma	2%	Rare

Links

Related articles

- Malignant tumors in gynecology
- Germinal tumors
- Malignant tumors of the ovaries

External links

- www.onkogyn.cz (http://www.onkogyn.cz/)

Reference

1. ROB, Lukáš – MARTAN, Alois – CITTERBART, Karel. *Gynekologie.* 2. edition. Praha : Galén, 2008. 390 pp. pp. 211–213. ISBN 978-80-7262-501-7.