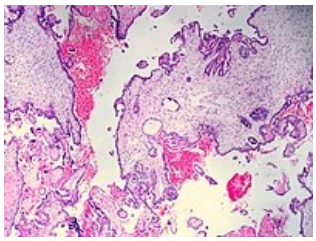
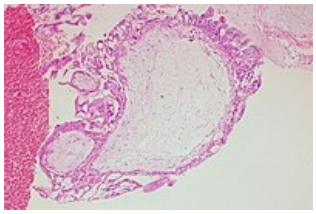
Gestational Trophoblastic Disease

Gestační trofoblastická nemoc[1] is a **fetal tissue invasion** ,that defies normal control mechanisms. Normally, the trophoblast invasion should disappear **within 30 days** after termination of pregnancy (delivery, abortion, ectopic pregnancy)[1]. We distinguish between *mola hydatidosa partialis*, *mola hydatidosa completa*, *mola hydatidosa proliferans* and *choriocarcinoma*.


Partial mola

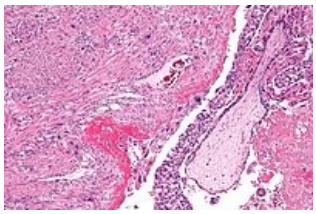
Partial (incomplete) mola

Mola hydatidosa partialis (MHP) is caused 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 mola

Complete mola

Mola hydatidosa completa(MHC) results from the **fertilization of an empty egg** (0 chromosomes) by two sperm at the same time (46,XX; 46,XY), or by one 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]. On the ultrasound, the image of "snowfall" is visible[1]. Malignant in 4-8%[1]. The treatment is vacuum exhaust and RCUI, dispensary and monitoring of hCG levels.


Proliferating mola

Mola proliferans

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

Choriocarcinoma

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

Choriocarcinoma 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

Criteria	Complete piers	Partial piers
Karyotype	Diploid (46;XX/XY)	Triploid (69;XXX/Y)
Genesis	Androgenic 2x sperm + egg without X 1x sperm + egg without X => duplication	Mixed 2x sperm + normal egg 1x 46 XX/Y sperm + normal egg
Embryo	Never!	Dies by 10 weeks
Villi	Avascular	Vascularized
Trophoblast	Diffuse proliferation	Focal proliferation
Atypia' (cellular)	Yes	No
hCG	Highly elevated	Normal
Choriocarcinoma	2%	Rare

Links

Related Articles

- Malignant tumors in gynecology
- Germinal Tumors
- Malignant ovarian tumors

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.