


# GESTACIJSKA TROFOBLASTIČNA BOLEST

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MIRJANA VRKLJAN  
-RADOŠEVIĆ  
PETAR KLARIĆ

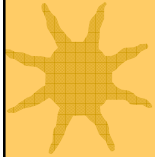

★ DEGENERATIVNI  
PROLIFERATIVNI  
PROCES U  
POSTELJICI I  
TO U ONOM  
DIJELU KOJI  
POTJEČE OD  
FETUSA



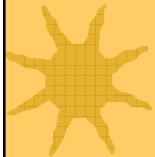
Brojne, grozdu nalik nakupine edematozno proširenih korijalnih resica.



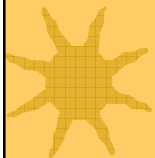
## TROFOBLASTIČNA BOLEST:



\* PARCIJALNA MOLA  
HIDATIDOSA



\* KOMPLETNA MOLA  
HIDATIDOSA



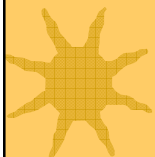
\* INVAZIVNA MOLA  
HIDATIDOSA

\* KORIOKARCINOM

\* KARCINOM SIJELA  
POSTELJICE

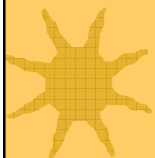


## INCIDENCIJA



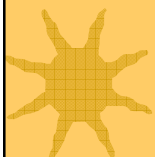
\* MOLA

KORIOKARCINOM



\* DALEKI ISTOK  
1:100-1:500

\* DALEKI ISTOK  
1:500-1:1000




\* EUROPA I SAD  
1:1500-1:2000

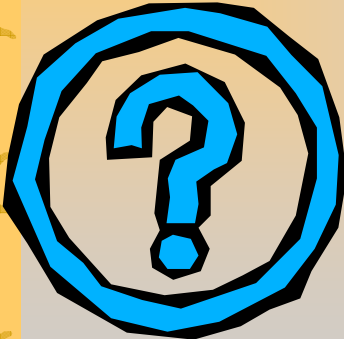
\* EUROPA I SAD  
1:20000-1:40000



	KOMPLETNA MOLA	PARCIJALNA MOLA
SINONIMI	KLASIČNA ,PRAVA, CJELOVITA	NEKOMPLETNA, DJELOMIČNA
FETALNO ILI EMBRIONSKO TKIVO	NEMA	POSTOJI
HIDATIFORMNO OTICANJE ILI KORIONSKE RESICE	RASPRŠENO	ŽARIŠNO
TROFOBLASTIČNA HIPERPLASIA	RASPRŠENO	ŽARIŠNO
NAZUPČANOST KORIONSKIH RESICA	ODSUTNO	PRISUTNO
TROFOBLASTIČNE STROMALNE INKLUZIJE	ODSUTNO	PRISUTNE
VILOZNE KAPILARE FETALNIH ERITROCITA	NEMA FET. ERITROCITA	MNOGO
GESTACIJSKA DOB	8-16TJ	10-22TJ
VRIJEDNOST hCG	>50000mij/ml	75% < 50000mIJ/ml
ZLOČUDNI POTENCIJAL	15-25%	5-10%
KARIOTIP	46XX,46XY	69XXY



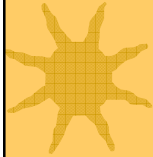
## ETIOLOGIJA:



- ★ DUGOTRAJNO KORIŠTENJE KONTRACEPTIVA PRIJE KONCEPCIJE
- ★ PREHRANA (KAROTEN, A-VITAMIN)
- ★ KRVNA GRUPA (Ax0;0xA)
- ★ AUTOSOMNE TRANSLOKACIJE



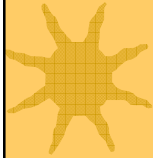
## RIZIČNI FAKTORI :



★ PREDHODNE MOLARNE TRUDNOĆE

★ DOB BOLESNICE >40g

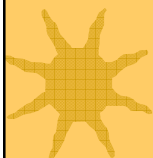
★ ONKOGENI p53, p21, Rb, mdm2



★ GEN c-erb-2

★ GEN p57kip2

★ GEN DOC2/h



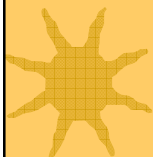
★ TRISOMIJA KROMOSOMA 8

★ HORMONSKI ČIMBENICI  
(PRL, hCG, E2, T3, T4, TSH)

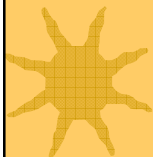
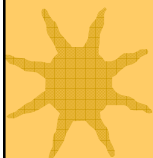
★ HUMANI ENDOGENI RETROVIRUS



## KLINIČKA SLIKA

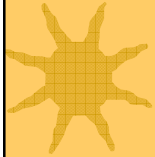


<u>TEGOBE I ZNACI</u>	<u>KOMPLETNA MOLA</u>	<u>PARCIJALNA MOLA</u>
RODNIČKO KRVARENJE	97%	73%
PREKOMJERNO POVEĆANJE MATERNICE	51%	4%
UPADLJIVE TEKA- LUTEINSKE CISTE JAJNIKA	50%	0%
TOKSEMIJA	27%	3%
HIPEREMEA	26%	0%
HIPERTIREOIDIZAM	7%	0%
TROFOBLASTIČNI EMBOLUSI	2%	0%

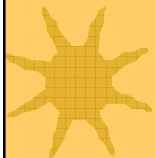
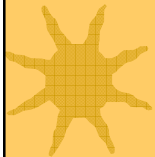




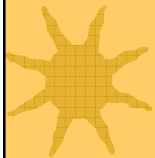
## DIFERENCIJALNA DIJAGNOZA HIDATIDNE MOLE :



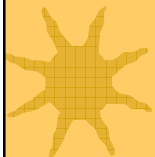
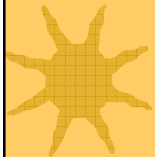
- \* PRIJETEĆI ILI ZADRŽANI POBAČAJ
- \* NORMALNA MATERNIČNA TRUDNOĆA S POGREŠNIM PODACIMA
- \* UTERINIM FIBROIDOM
- \* NOVOTVORINOM JAJNIKA
- \* VIŠEPLODNA TRUDNOĆA
- \* HIDRAMNIJ
- \* INTRAUTERINA SMRT PLODA
- \* POSTELJICA PREVIJA



## DIJAGNOSTIČKI POSTUPAK:

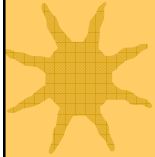


- \* ANAMNEZA I FIZIKALNI PREGLED
- \* UZV ABDOMENA I ZDJELICE
- \* ODREĐIVANJE SERUMSKOG BETA-hCG
- \* RTG PRSNOG KOŠA
- \* KKS
- \* BIOKEMIJSKE PRETRAGE
- \* KOAGULOGAM
- \* TIREOIDNI HORMONI
- \* EKG
- \* PLINOVI U ARTERIJSKOJ KRVI

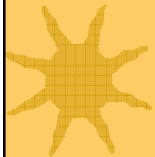




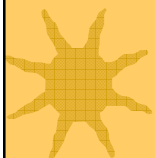
## LIJEČENJE HIDATIFORMNE MOLE



★ VACUM ASPIRACIJA UZ  
INFUZUJU OKSITOCIKA TE  
NJEŽNA KIRETAŽA.



★ HISTEREKTOMIJA

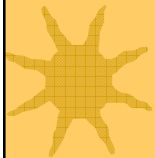


★ PROFILAKTIČNA KEMOTERAPIJA  
KOD VISOKO RIZIČNIH SKUPINA

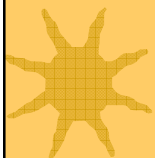


## VISOKORIZIČNE MOLE

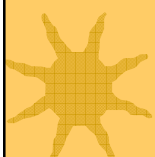
*Curry i sur. Goldstein i sur.*



★ VELIČINA MATERNICE VEĆA OD  
AMENOREJE



★ PREEVAKUACIJSKE VRIJEDNOSTI hCG VEĆE  
OD 100 000 I.J./L



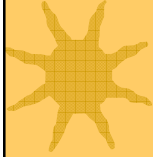
★ TEKA LUTEINSKE CISTE U PROMJERU VEĆE  
OD 6 CM

★ DOB IZNAD 40g.

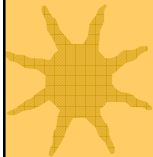
★ PREDHODNE MOLARNE TRUDNOĆE ILI  
NEOPLAZIJE, HIPERTIREOZA, TOKSEMIJE,  
TROFOBLASTIČNE EMBOLIZACIJE, DIK



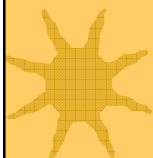
## INDIKACIJA ZA KEMOTERAPIJU (SZO)



\* AKO SE NE POSTIGNE NEG. NALAZ  
beta hCG U 12 TJEDANA



\* ISTA RAZINA ILI PORAST beta hCG  
U SERUMU NAKON MOLARNE  
TRUDNOĆE



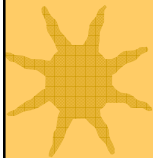
\* PORAST VRIJEDNOSTI beta hCG  
NAKON NEGATIVNOG NALAZA

\* DOKAZ TROFOBLASTIČNE  
NEOPLAZIJE

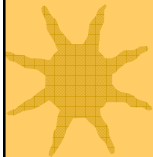
\* DOKAZ METASTAZA



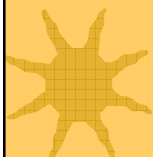
## INDIKACIJA ZA HISTEREKTOMIJU



\* SMANJENJA MOGUĆNOSTI  
DISEMINACIJE TUMORSKOG  
EMBOLUSA



\* OTPORNOST NA  
KEMOTERAPIJU, TOKSIČNOST, IZRAZI  
TE POPRATNE POJAVE

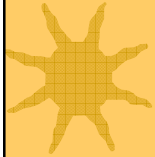


\* KOMPLIKACIJE POPUT PROFUZNOG  
VAG. KRVARENJA, PERFORACIJE  
MATERNICE, INTRAPERITONEALNOG  
KRVARENJA, INFEKCIJE

\* LOKALIZIRANA BOLEST U STARIJIH  
VISEROTKINJA

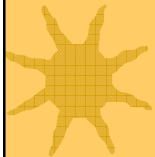


## KOMPLIKACIJE HIDATIDNE MOLE



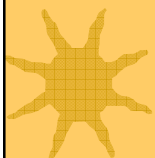
### ★ PERIOPERCIJSKE

- ★ GUBITAK KRVI I HIPOVOLEMIČKI ŠOK
- ★ RASPRŠENA INTRAVASKULARNA KOAGULOPATIJA
- ★ HIPERTIREOIDIZAM
- ★ SINDROM ŠOK PLUĆA
- ★ PERFORACIJA MATERNICE
- ★ RUPTURA ILI TORZIJA TEKA LUTEINSKIH CISTA

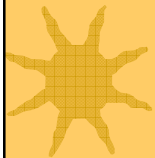


### ★ POSLIJEOPERACIJSKE

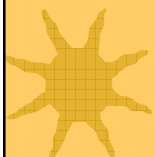
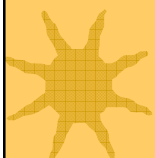
- ★ ODGOĐENO KRVARENJE
- ★ KOMPLIKACIJE OD PERZISTIRAJUĆIH TEKA LUTEINSKIH CISTA
- ★ INVAZIVNA MOLA S PERFORACIJOM MATERNICE
- ★ ZLOĆUDNA GESTACIJSKA TROFOBLASTIČNA NOVOTVORINA



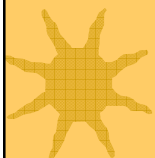
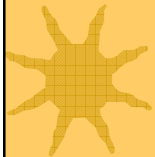
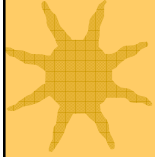
## KORIOKARCINOM



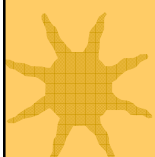
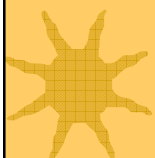
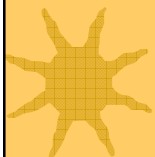
- ★ ZLOĆUDNI TUMOR EPITELA KORIONSKIH RESICA GRAĐEN OD SINCICIO- I CITOTROFOBLASTA.







- ★ 50% MOLA HIDATIDOSA
- ★ 25% NORMALNA TRUDNOĆA
- ★ 22,5% POBAČAJ
- ★ 2,5 %GEU

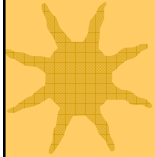


## FIGO KLASIFIKACIJA GTN

- ★ *I.*-GTN OGRANIČENA NA MATERNICU
- ★ *II*-GTN IZVAN MATERNICE ALI OGRANIČENA NA SPOLNE ORGANE
- ★ *III*-GTN U PLUĆIMA, S ILI BEZ ZAHVAĆANJA SPOLNIH ORGANA
- ★ *IV*-SVE DRUGE METASTAZE
- ★ (DOB, PRETHODNA TRUDNOĆA, INTERVAL, BETA hCG, VELIČINA TM, ABO, MJESTO I BROJ METASTAZA, PREDHODNE KEMOTERAPIJE)

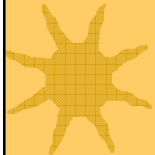
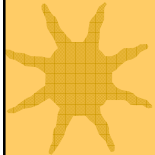


## KLASIFIKACIJA GTN



- \* METASTATSKA
- \* DOBRA PROGNOZA

- \* Trajanje bolesti kraće od 4 mj
- \* Titar hCG prije terapije:
  - \* Manji od 100 000 i.j./24h
  - \* Manji od 40 000 m i.j./ml
- \* Bez metastaza na mozgu i jetri
- \* Bez predhodne terapije

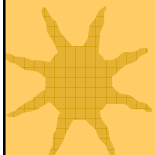
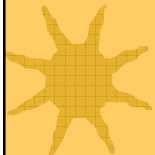
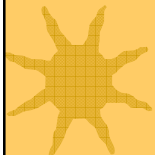


- \* METASTATSKA
- \* LOŠA PROGNOZA

- \* Trajanje bolesti dulje od 4 mj
- \* Titar hCG prije terapije
  - \* Veći od 100 000 i.j./24h ili
  - \* Veći od 40 000 mi-j-/ml
- \* Metastaze na jetri i mozgu
- \* Predhodna kemoterapija
- \* GTN nastala nakon ročne trudnoće



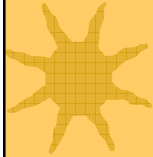
## RELATIVNA UČESTALOST METASTAZA - HEMATOGENO ŠIRENJE



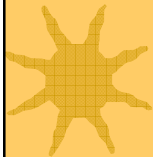
- \* PLUĆA 80%
- \* RODNICA 30%
- \* ZDJELICA 20%
- \* MOZAK 10%
- \* JETRA 10%
- \* CRIJEVO, BUBREG, SLEZENA <5%



## KLINIČKA SLIKA



- \* OSKUDNO KRVARENJE
- \* INTRAABDOMINALNO KRVARENJE
- \* KRVARENJE IZ PROBAVNOG SUSTAVA

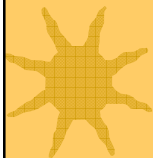


\* KAŠALJ

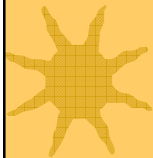
\* HEMOPTOJA

\* INTRAKRANIJALNO KRVARENJE

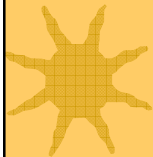
\* METASTATSKI ČVORIĆI U RODNICI



## DIJAGNOSTIKA



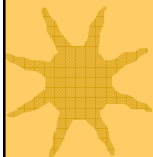
- \* ANAMNEZA
- \* KLINIČKI PREGLED
- \* Beta hCG U SERUMU



- \* RTG PLUĆA
- \* CT ILI UZV ABDOMENA
- \* CT GLAVE

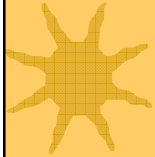
\* SELEKTIVNU ANGIOGRAFIJU TRBUŠNIH I ZDJELIČNIH ORGANA

- \* ODREĐIVANJE FUNKCIJE BUBREGA I JETRE
- \* LEUKOCITI I TROMBOCITI U PERIFERNOJ KRVI



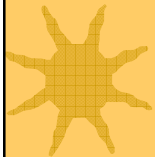


## LIJEČENJE I STADIJ

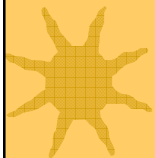


### ★ **MONOKEMOTERAPIJA SA HISTEREKTOMIJOM**

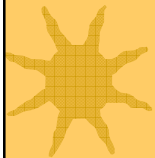
(METOTREKSAT 1mg/kg 1,3,5,7 dan sa  
FOLNOM KISELINOM 0,1mg/kg 2,4,6,8 dan. -svakih 7 dana)



### ★ **KOMBINIRANA KEMOTERAPIJA S HISTEREKTOMIJOM**



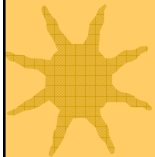
## II-III STADIJ



### ★ NISKI RIZIK-

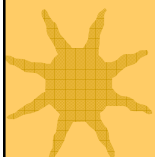
### ★ **MONOKEMOTERAPIJA**

### ★ **KOMBINIRANA** (KOD REZISTENTNIH)



### ★ VISOKI RIZIK-

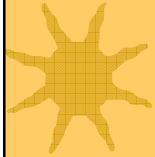
### ★ **KOMBINIRANA**



### ★ **"SECOND LINE" POLIKEMOTERAPIJA**(KOD REZISTENTNIH)

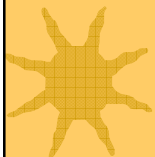


## IV STADIJ

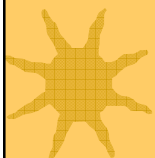


### ★ KOMBINIRANA KEMOTERAPIJA

★ (METOTREKSAT 15mg i.v. dnevno, AKTINOMICIN D 10-15mg i.v., KLORAMBUCIL 10mg dnevno tijekom 5 dana)

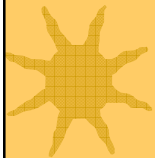


### ★ ZRAČENJE 3000cG (MOZAK)

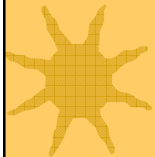


### ★ RESEKCIJA JETRE

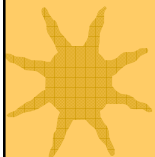
### ★ "SECOND LINE" KEMOTERAPIJA



★ EMA-CO (etoposid, aktinomicin D, metotreksat, vinkristin, ciklofosfamid)

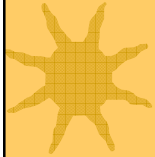


★ CHAMOCA (hidroksiureja, vinkristin, metotreksat, ciklofosfamid, aktinomicin D, adriamicin)





## PROGRAM NADZORA:



\* RHOGAM KOD Rh NEGATIVNIH PACIJENTICA AKO NEMAJU PROTUTJELA

\* beta hCG

\* 1x TJEDNO DO 3 NEG NALAZA

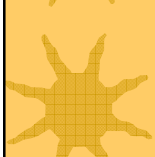
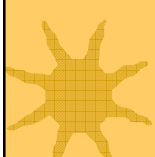
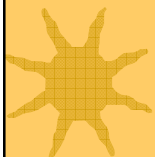
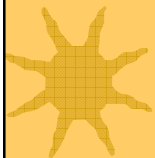
\* 1x MJESEČNO 12 MJESECI

\* GIN.PREGLED

\* SVAKA 2 TJEDNA DO POVLAČENJA BOLESTI

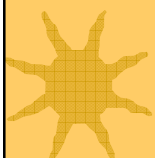
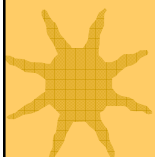
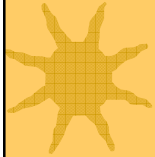
\* SVAKA 3 MJESECA TIJEKOM GOD.DANA UZ KONTROLNI RTG PLUĆA

\* KONTRACEPCIJA 6-12 MJESECI

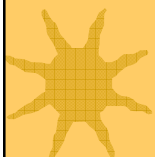
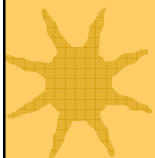
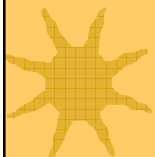


PRIKAZ

SLUČAJA



- ★ B.P. 55 god.
- ★ udata, umirovljenica
- ★ okolica Zagreba
- ★ 25.10.2003. Metrorrhagia .Myoma uteri necroticae susp.



- ★ Obiteljska anamneza -majka umrla od Ca želudca
- ★ Osobna anamneza-uredno
- ★ Ginekološka anamneza-lijčila sterilitet nakon čega je spontano zanesla
- ★ Ciklusi-redoviti 28/6, srednje obilni ,menarha 13g
- ★ ZM-19.10.2003.
- ★ P-1, AB-0



#### \* RAZLOG DOLASKA

- \* Nepravilno krvarenje
- \* 10.10 i 19.10.

#### \* GIN.NALAZ

- \* Višerotkinja, vagina srednje prostrana. Portio epitelizirana, cilindrična. Uterus povećan, seže P/S, smekšan. Adnexa se ne pipaju. Sekrecija krvava

#### \* UZV

- \* Uterus kuglast mjeri 90,9x81,9mm, endometrij nejasnih granica, skoro do seroze miometrija, dilatiranog kavuma ispunjenog tekućinom. Desni jajnik 28x20,8mm , lijevi jajnik 34,3x28,8



#### \* 25.10.2003.

- \* Excochleatio CC, dilatatio et curettage (sonda 12,5)

#### \* 28.10.2003.

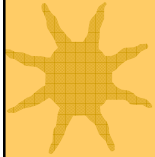
- \* PHD13355/03
  - 1) endocerviks b.o.
  - 2) Residua placentae inflammatae
  - 2) Degeneratio hydropica villorum placentae

beta hCG-300 860





Koagulogram 25.10.1003.  
APTV-25 PV-99% Fibrinogen-4,2  
TV-15 Fibrinoliza-145



\* KKS 27.10.2003.

\* L-12,2

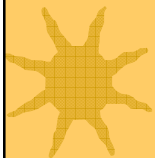
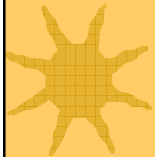
\* E-3,61

\* Hgb-113

\* Hct-0,32

\* Tromb-327

\* RTG pluća i srca  
uredan



\* KKS 8.11.2003

\* L-7,9

\* E-3,36

\* Hgb-102

\* Hct-0,30

\* Tromb-442



28.10.2003



\* Exstirpatio uteri  
abdominalis

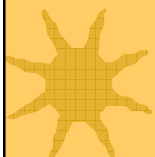
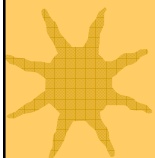
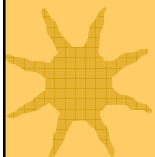
\* Adnexectomia  
billateralis

\* PHD 13308/03

\* Mola hydatiformis  
invasiva

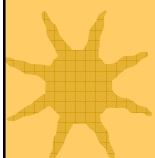
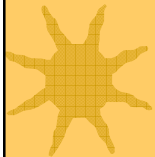
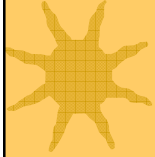
\* Cystis luteinica ovarii  
sin

\* Fibromyomata  
corporis uteri





## Tijek vrijednosti beta hCG



- \* 28.10.-300 860
- \* 30.10.-35 200
- \* 01.11.-16 200
- \* 03.11.-7 170
- \* 05.11.-2 912
- \* 07.11.-1 768
- \* 10.11.-1 014
- \* 13.11- 350
- \* 20.11.-134
- \* 27.11- 69
- \* 04.12.- 25
- \* 11.12.- 18
- \* 18.12- 11
- \* 18.1.2004.-

