CLINICAL MANAGEMENT SPECIFITIES IN PGD CYCLES

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Clinical Managament

- Patient selection
- Patient counselling
- PGD possibility assessment
- IVF ability assessment
- Risk assessment
- Informed consent
- PGD cycle

Patient selection

- Prognosis quo ad graviditatem
- Prognosis quo ad fertilitatem
- Prognosis quo ad IVF
- Prognosis quo ad PGD

Patient counselling

- High risk PGD
  - Clinical geneticist consultation unavoidable
- Low risk PGD (PGS)
  - Skilled Reproductive specialist consultation fully acceptable (negative history)

CHROMOSOMAL ANALYSIS NECESSARY

Clinical Management IVF/PGD cycle

- The aim of the PGD/PGS cycle is to obtain a „good“ number of „negative“ embryos with top morphological quality
- The success depends on the number of:
  - retrived oocytes – fertilized embryos – TQ embryos – (FISH, PCR) negative TQ embryos

Number of oocytes is crucial

- What is the „good“ number of oocytes ?
  - In poor IVF prognosis (age) the chance of „good quality oocyte“ less then 1:7 oocytes !!!
  - In balanced translocation the chance of having negative embryo in some couples less then 10% !!!
  - Cut off line has to be defined for every method
- Controlled ovarian hyperstimulation
  - Stimulation in average more agressive compared to the standard IVF program (soft protocols in general are useless)
  - Client selection and risk assesment necessary !

Low response - poor oocyte quality

- If poor quality of oocytes – excluding criteria
- If good number of quality oocytes is not available:
  - „storing“ cycles (embryos from more cycles are set aside both frozen and fresh and than one PGD diagnosis is performed)
  - Question of freezing in PGD cycles – in storing cycles preferentially cryopreserved PN

Stimulation management

Necessary condition:

- IVF unit - very good experience with risk patients´ stimulation required
  - Risk of OHSS
  - Risk of low response
- Stimulation tailoring (optimal protocol - optimal dose)
- Doses of gonadotropins are varying
  - 37 IU – 600 IU per day

Risk assessment

- Previous IVF stimulation assessment
- In first cycles:
  - ovarian reserve – natural cycle, FSH, ultrasound
  - thyroid gland
  - Thrombophilic mutation (repetitive ab., positive history)
- If any risk is suspected – more evaluations

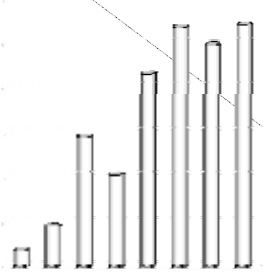
Informed consent

Clients expect:

- Easy to understand
- Mother tongue
- Possibility to ask questions
- Opportunity to have time enought to make their decision

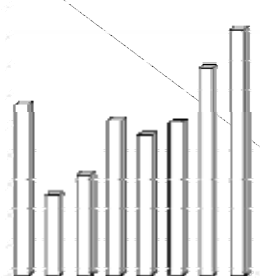
Results of the QMS implementation

Number of cycles development



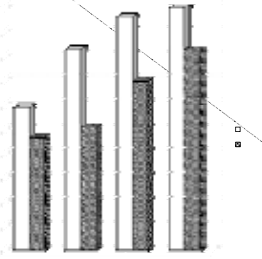
Year	No
2000	7
2001	18
2002	58
2003	41
2004	86
2005	107
2006	99
2007	108

Clinical pregnancy rate developement



Year	PR/ET
2000	28,6%
2001	13,3%
2002	16,7%
2003	25,8%
2004	23,4%
2005	25,5%
2006	34,8%
2007	41,3%

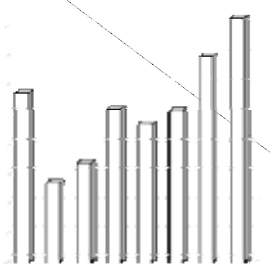
Pregnancy rate – all cycles x PGD



Year	All	PGD
2004	29,5%	23,4%
2005	41,4%	25,5%
2006	48,2%	34,8%
2007	50,0%	41,3%

r = 0,87867

Pregnancy rate in PGD cycles development



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Aneuploidy in embryos

Embryos	Ratio
Euploid	40,00%
aneuploid	45,50%
mozaic	14,50%
complementary mosaic	0,60%

Are there any differences between standard IVF and PGD cycle ?
YES, there are.

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