

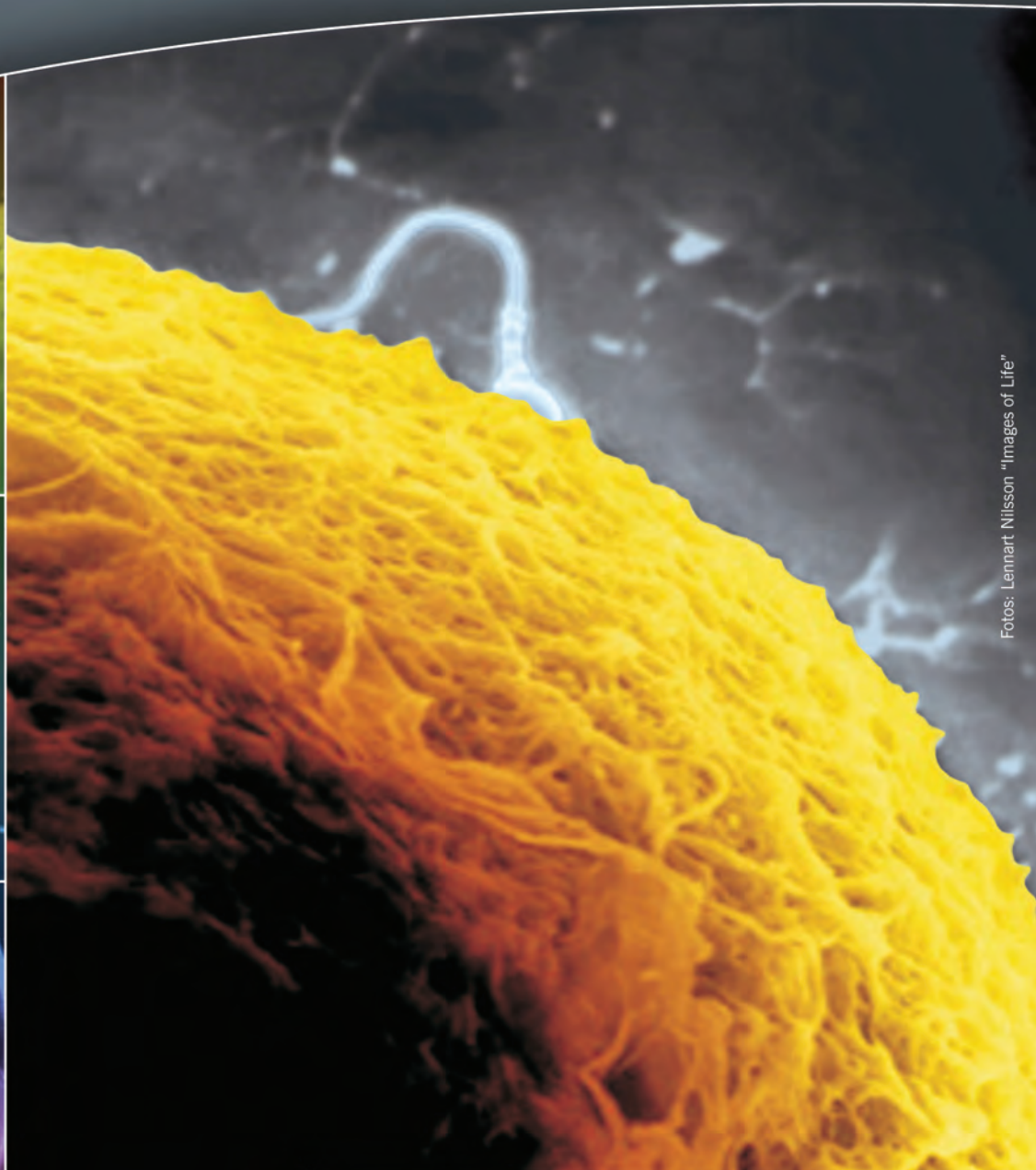
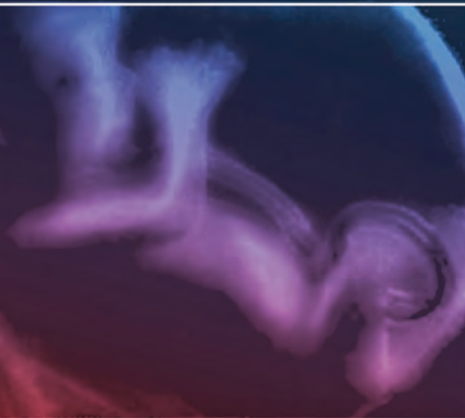
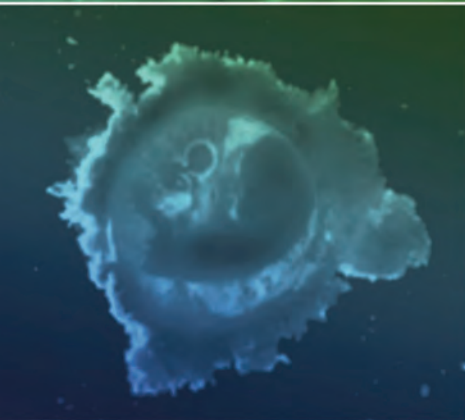
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Assisted Reproduction

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Resultados: Os testes estatísticos empregados resultaram em $p=0,008$, $OR=15,6\%$, e $AROC=0,691$ para a classificação Belga-dinamarquesa modificada; $p=0,013$, $OR=8,8\%$, e $AROC=0,685$ para a classificação por pontuação cumulativa; $p=0,017$, $OR=7,9\%$, e $AROC=0,675$ para a classificação veeck modificada; $p=0,020$, $OR=11,3\%$, e $AROC=0,674$ para a classificação Veeck original. Na prática todas as classificações estudadas são igualmente eficientes, uma vez que os números de significância, razões de chance e áreas sob a curva ROC foram muito semelhantes. As pequenas variações estatísticas encontradas não são significantes, e ocorrem devido ao próprio teor singular e critérios específicos adotados pelas diferentes classificações.

Conclusões: Todas as classificações embrionárias morfológicas analisadas por esse estudo são eficientes em selecionar os melhores embriões para a transferência. Levando em consideração os resultados que seriam obtidos na prática, a eficiência de todas as classificações é a mesma, não havendo classificação que seja na prática melhor ou pior do que a outra.

Palavras-chave: morfologia embrionária, classificações, gravidez

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P17 - Is there any difference in vitrification and slow freezing protocol for oocyte and embryo cryopreservation?

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Setting: Fertilitat Reproductive Medicine Centre, Porto Alegre, RS, Brazil

ABSTRACT

Objective: Since the vitrification technique was developed, a question mark has been raised in order to find out if there is any indication of which protocol has better results in cryopreserving oocytes and embryos. This study had the objective to compare the cryopreservation efficiency between slow freezing and vitrification technique for oocytes and embryos.

Material and methods: For the past 2 years we have had the opportunity to thaw embryos and oocytes either vitrified or frozen by slow freezing protocol. A total of 95 cycles (55 by slow freezing and 40 by vitrification) were performed for those patients that decided to thaw their oocytes and 120 cycles (60 to each method) were performed for those that decided to thaw their embryos. Two days before the embryo replacement, the oocytes were thawed and kept in a CO_2 incubator humidified in air, at $37^\circ C$ during 2 hours before inseminating by intracytoplasmic sperm injection (ICSI). While the embryos were thawed in the replacement day, 2 hours before transferring. All embryo transfers were performed with catheter, under ultrasound control.

Results: Survival rates were statistically different ($p < 0,05$) in oocytes (65.9% to vitrification versus 55.6% for slow freezing) and embryos (89.7% to vitrification against 79.2% by slow freezing) respectively. Fertilization, cleavage, implantation, pregnancies and clinical pregnancies were not statistically different for embryos and oocytes.

Conclusion: Although the survival rate were better for vitrification technique, the pregnancy rate did not show any difference, thus both technique are efficient and can be used in assisted reproduction.

Keywords: survival rate, freezing, human oocytes, human embryos, pregnancy rate

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P18 - Post thaw survival rate in an egg-cryobanking donation program: the oocyte morphology impact.

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ABSTRACT

Objective: The present study aimed at evaluating whether oocyte dysmorphisms can affect oocyte survival rates in an egg-cryobanking donation program.

Material and methods: A total of 415 MII oocytes obtained from 54 donor patients were vitrified using Cryotop method. Oocyte morphology was assessed using an inverted Nikon Diaphot microscope (Eclipse TE 300; Nikon®, Tokyo, Japan) with a Hoffmann modulation contrast system under 400X magnification, just before oocyte vitrification (2-3 hours after retrieval). The influence of dysmorphism's incidence on survival rates post thaw was assessed using linear regression analysis. Results are expressed as R^2 and P values. Results were considered to be significant at the 5% critical level ($p < 0.05$).

Results: Out of 415 vitrified oocytes, 358 (86.3%) survived. Oocyte survival rate was not affected by the presence of the analysed oocyte abnormalities: increased cytoplasmic granularity ($R^2: 1.6\%$, $P= 0.114$), vacuoles in the ooplasm ($R^2: 2.3\%$, $P= 0.276$), aggregates of smooth endoplasmic reticulum in the ooplasm ($R^2: 0.5\%$, $P=0.597$), large perivitelline space size ($R^2: 0.1\%$, $P= 0.119$), perivitelline space granularity ($R^2: 0.5\%$, $P=0.104$), fragmented first polar body ($R^2: 1.3\%$, $P= 0.403$) and zona pellucida abnormalities ($R^2: 3.5\%$, $P= 0.177$).

Conclusions: Oocyte cytoarchitecture seems to be preserved after warming procedure, irrespective of the morphology. Nowadays, there is no way to forecast oocyte donors, or stimulation cycles characteristics indicating in low oocyte survival after vitrifying and thawing. The non-invasive identification of predictive markers for oocyte survival potential remains a difficult task.

Key words: oocyte vitrification, egg-cryobanking, oocyte quality, oocyte morphology, oocyte dysmorphism.

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P19 - Evaluating results from blastocyst vitrification.

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ABSTRACT

Introduction-Objective: The vitrification of blastocyst is an efficient and insurance technique that allows the storage of exceeding embryos. So the objective was to evaluate the results of the vitrification of human blastocyst in the Clinic Pró Criar / Mater Dei.

Materials and Methods: It is an observational, retrospective and descriptive study. 292 patients who had submitted a frozen-thawed blastocyst cycle during the period of January of 2007 the May of 2010 had been evaluated.

Results: The mean age of the women was 34,35 years. The mean number of vitrified and defrosted blastocyst for patient was $2,08 \pm 0,87$ (varying of 1 a 7 blastocyst), totalizing a total of 604 defrosted blastocyst. 482 blastocyst had survived, with a survival rate of 80%. The average number of blastocyst transferred was $1,63 \pm 0,77$. 57,53% patients had had the blastocysts frozen in Day 5 and 42,47% in Day 6. The global pregnancy rate for thawed cycle was 44,5%. The clinical pregnancy rate for transfer was 48%. There was no statistical difference in pregnancy rate when Day 5 and Day 6 were compared.

Conclusion: the vitrification of blastocyst is an efficient technique, with high survival rate, that allows the storage of the exceeding embryos with a high pregnancy rate in thawed cycles.

Key words: vitrification, blastocyst, cryopreservation

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P20 - Outcomes of assisted hatching in women older than 35 years undergoing in vitro fertilization.

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Abstract

Objective: To assess the impact of assisted hatching on the results of in vitro fertilization in women older than 35 years.

Methods: 232 cycles of in vitro fertilization in patients older than 35 years old were retrospectively evaluated. The patients were divided in 2 groups: assisted hatching group and control group.

Results: The mean age was similar in both groups ($38 \pm 2,12$ and $37,86 \pm 2,17$, assisted hatching group and the control group, respectively, $P = 0,58$). When compared to the control group, the patients who had done assisted hatching showed significantly less oocytes retrieved and metaphase II oocytes, and worse fertilization rate ($74\% \times 82\%$, $P=0,016$) and embryo freezing rate ($19\% \times 35\%$, $P = 0,007$). Besides this, the patients treated with assisted hatching had already done significantly more previous IVF cycles, and used more ampoules of gonadotropins. There were no statistical differences in implantation ($18\% \times 20\%$) and pregnancy rates ($37\% \times 41\%$) between both groups.

Conclusions: the patients who had the “assisted hatching” showed characteristics relating to the cycle of IVF indicating a worse prognosis for pregnancy, but even so, they obtained an implantation and pregnancy rate similar to the control group patients.

Key words: assisted hatching, in vitro fertilization, pregnancy

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P21 - Efectividad de fertilización in vitro mediante inyección intracitoplasmática para pacientes con azoospermias obstructivas.

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Introducción- objetivo: La ausencia total de espermatozoides en el semen (azoospermia) tiene una incidencia del 5% entre hombres infértiles. A su vez, las obstrucciones en el tracto eferente se calculan entre el 30-40% de los casos de azoospermias. Actualmente este tipo de infertilidad puede ser tratada por medio de la técnica de inyección intracitoplasmática del espermatozoide (ICSI) con espermas de origen testicular o del epidídimo. El objetivo de este estudio fue comparar la efectividad del ICSI con espermatozoides epididimarios en pacientes con azoospermias obstructivas respecto a un grupo control de pacientes normospermicos con esterilidad de causa tubaria.

Materiales y métodos: se compararon 2 grupos de pacientes infértiles: grupo A: 28 parejas con azoospermias obstructivas realizaron un total de 41 ciclos ($\bar{x} 1,4 \pm 0,7$) de ICSI con espermatozoides epididimarios; grupo B: 42 pacientes con factor tubario recibieron 51 ciclos ($\bar{x} 1,2 \pm 0,5$) de ICSI utilizando espermatozoides eyaculados. Los principales parámetros medidos fueron: porcentajes de fertilización, implantación, embarazo clínico y tasa de aborto.

Resultados: El porcentaje de fertilización fue del 71,9% y 77,9% para el grupo A y B respectivamente, con una tasa de implantación del 19% y 12,3%. La tasa de embarazo clínico fue del 36,6% y 29,4% por ciclo y de 35,7% y 30,9% por paciente, en los grupos A y B, respectivamente, presentando una tasa de abortos de 13,3 % en cada grupo. Ninguno de los parámetros evaluados presentó diferencias significativas.

Conclusión: Los resultados de la fertilización in vitro con inyección intracitoplasmática de espermatozoides epididimarios en el tratamiento de pacientes con azoospermias obstructivas son comparables a los obtenidos en ICSI con espermatozoides eyaculados en pacientes con factor tubario.

Palabras-clave: inyección intracitoplasmática de espermatozoides, espermatozoides epididimarios, azoospermias

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P22 - Viabilidad de embriones de ratón re-vitrificados sucesivamente.

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