

Abstract

Impact of spermogramme quality on *in vitro* fertilization

Master's Thesis

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Number of couples who have problems with becoming pregnant increases every year. Sometimes, change of lifestyle or alleviation of life tempo can help but in other cases couples have to use centre of assisted reproduction service. In some cases is infertility caused by only one factor, in other cases are factors combined. The aim of this work was evaluation of question, if the spermogramme quality influences quality of artificial insemination. The secondary aim was to evaluate which technique of oocyte active insemination by injection (Intracytoplasmic sperm injection, ICSI or Intracytoplasmic morphologically – selected sperm injection IMSI) is more successful at fertilization *in vitro*.

Datas and results were taken from 100 couples who underwent therapy using donated oocytes at Zentren Prof. Zech – Pilsen, s.r.o. clinic. Men who gave a fresh ejaculate in day of oocyte collection by ovarian puncture are included in this work. Donated oocytes were micromanipulatively impregnated by sperms which were taken from ejaculate. According to the spermogramme results men were divided into two groups. First one was control group with normal spermogramme results and the second one with pathological values in spermogramme. Donors oocytes are involved in the work to minimize the effect of female factors.

Our work shows, that impact of spermogramme quality on *in vitro* fertilization was not proved at all. It follows that basic andrologic semen analysis – spermogramme has not any value for application of methods of assisted reproduction. While comparing two different micromanipulative techniques for fertilization we did not find out any significant statistical difference

Key words: spermogramme, sperm, ICSI, IMSI, *in vitro* fertilization