

Abstract: This paper presents the methods for selecting the best quality embryos with the greatest potential for successful implantation. Today, it is preferable to transfer one embryo and therefore selection methods are continually improving and we are looking for the most suitable parameters for selection. Embryo quality can be judged from many methods. The oldest and most widely used is the classic morphological rating. Another evaluation method is based on the metabolic activity of the embryo during the cultivation, the disadvantage of this method is the cost. Genetic testing as preimplantation genetic diagnosis and preimplantation genetic screening are also costly and invasive, therefore may damage the embryo and due to mosaicism, also is not 100% effective. Combining morphological and kinetic evaluation provides a non-invasive method of time-lapse monitoring. Embryos are assessed by morphological characters and also on the timing and synchrony cleavage.

The aim of the study is to compare the statistical results of car Sanus Pardubice, if morphokinetic method (PrimoVision, Cryo-Innovation, Hungary) help improve the IVF results compared to the classic morphological method of assessing the quality of embryos for two years using the system. The unit is divided into 2 groups with and without PrimoVision and these are more selected according the age < 30 years, 31-35 years, > 36 years. In the results there were no difference in this groups. In a distribution of clients by the age, the pregnancy rate results were lower with PrimoVision for clients < 30 years and 31-35 years. In these groups, the method time-lapse didn't contribute to better results than classic rating of embryo development. The usefulness of time-lapse occurred in the group > 36 years, where the results were better with time-lapse monitoring than without it.

Keywords: human embryo, Time -lapse monitoring PrimoVision, assisted reproduction, cleavage cells