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**A computer based system for predicting ongoing pregnancy after in vitro fertilization**

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**I**nfertility of couples considered an important social problem now-a-days. In Vitro Fertilization (IVF) is a complex series of procedures used to treat fertility that mature eggs are collected from ovaries and fertilized by sperm in a lab. In this study, a computer based system has been developed for predicting ongoing pregnancy after IVF, using Naive Bayes classification algorithm which is the one of the machine learning method. The study was conducted between 2008-2010 at the infertility outpatient clinic in Zekai Tahir Burak Hospital, in Turkey. 438 couples with diversified causes of infertility underwent 554 cycles of intrauterine insemination. Couples received a maximum of six cycles for treatment of anovulation or unexplained infertility. Serious male factors such as severe oligozoospermia and/or asthenozoospermia were excluded from study during pretreatment stage. In the scope of the study, 62 features of data has been ranked by using Learnin Vector Quantization (LVQ) method and selected the most important 5 parameters for describing the pattern of ongoing pregnancy after IVF. Using these parameters, a predicting model has been developed as a support system to help the physicians. Consequently, 73.3% sensitivity, 41% specificity values have been obtained as a result of the study.

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**Biography**

Ilknur Bucan Kirkbir has completed her MSc in Biostatistics and Medical Informatics from Karadeniz Thecnical University and been PhD student in Department of Biostatistics and Medical Informatics since 2017. She is also Lecturer in the Department of Public Health Nursing since 2017 in Karadeniz Technical University.

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