

## **P65. ASSESSMENT OF HEAVY METAL LEVELS IN FOLLICULAR FLUID OF WOMEN WITH UNEXPLAINED INFERTILITY**

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The reproductive health of women is currently a major worldwide public health problem. The World Health Organization reported that more than 10 % of women are severely affected by infertility. Environmental factors especially exposure to toxic heavy metals may be contributed to development of unexplained infertility because toxic heavy metals may change fertility patterns via endocrine disrupting mechanisms. In addition to this, there are very few studies about the trace element and toxic heavy metal levels in follicular fluid which considering as target matrix for unexplained infertility. In this study, we aimed to evaluate the heavy metal and trace element levels in follicular fluid undergoing in vitro fertilization (IVF). For this purpose, follicular fluids were obtained from 19 women (age 21-38) who was treated in Department of Obstetrics and Gynecology. Metals levels in the samples were measured using atomic absorption spectrometric analysis (AAS). Arsenic (As) and lead (Pb) were not found in follicular fluids. The mean levels of cadmium (Cd), aluminium (Al), copper (Cu), zinc (Zn), chromium (Cr) and cobalt (Co) were quantified as 0.93 µg/L, 30.6 µg/dl, 46.4 µg/dl, 44.6 µg/dl, 4.15 µg/dl and 4.71µg/dl, respectively. Our results showed that these trace and toxic heavy metals must be considered in the etiology of unexplained infertility. Also further research should be carried out to explain the biological effects of heavy metals in unexplained infertility.

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