

CORRELATION OF PMI WITH SODIUM, POTASSIUM, ASCORBIC ACID AND ALKALINE PHOSPHATASE IN VITREOUS HUMOUR

MOHIT SHARMA¹, AJAY BHARGAVA² & RAHUL KABRA³

¹Research Scholar, Department of Biochemistry, Jhalawar Medical College, Jhalawar, Rajasthan, India

²Professor and Head, Department of Biochemistry, Jhalawar Medical College, Jhalawar, Rajasthan, India

³Assistant Professor, Government Medical College, Kota, Rajasthan, India

Corresponding Author :- Dr. Rahul Kabra, rahul77kabra@gmail.com

ABSTRACT

Biochemical and enzymatic changes are observed in the blood and other body fluids such as C.S.F., Vitreous fluid, Synovial fluid, etc. which usually start immediately or shortly after death. In this study, we have tried to find out the correlation of sodium, potassium, ascorbic acid and alkaline phosphatase in vitreous humour with time since death (PMI).

Material and Methods

The present study was carried out in Jhalawar Medical College, Jhalawar. 110 samples were collected in the mortuary of the Forensic Medicine Department & Biochemical analysis was done in the Department of Biochemistry, using Beckman Coulter automated analyser while vitreous ascorbic acid was estimated manually. Data was analyzed on the basis of SPSS20.0 software and results obtained using Student's unpaired t- test.

Results

According to the statistical analysis vitreous potassium increases with time since death, while vitreous sodium, ascorbic acid and alkaline phosphatase do not have significant correlation with time since death.

Conclusions

We observed a linear rise of potassium (K^+) ion concentration in the vitreous humour with an increasing postmortem interval. Correlation of sodium (Na^+) ion concentration, levels of ascorbic acid and levels of Alkaline Phosphatase (ALP) in vitreous humour with post-mortem interval have not been found statistically significant.

KEYWORDS: PMI, K^+ , Na^+ , Ascorbic acid, ALP