Abstract

The human body is composed of different types of cells, that are specialized for particular function. These cells are involved in various functions depending on their location of the body. Therefore cell membrane plays an important role both in cellular and organism structure. The present study was carried out to compare the cell membrane stability under selected disease conditions.

The cell membrane stability was observed by osmotic fragility test. A group of 24 people of Normal, Diabetes mellitus, dengue viral fever and hypertension were selected for the study. Osmotic fragility test was triplicated for each colleted blood sample. The results were tabulated and the median corpuscular fragility (MCF) was evaluated using minitab statistical package.

The mean corpuscular fragility of each category was determined and statistical evaluation was carried out by kruskal Wallis test.

Mean median corpuscular fragility of (MCF) normal healthy adults, patients of diabetes mellitus, dengue viral fever and hypertension were 0.45 ± 0.02, 0.47 ± 0.01, 0.40 ± 0.01 and 0.37 ± 0.0045 respectively.

There is a significant variation of cell membrane stability in dengue viral fever patients diabetes mellitus patients and hypertension patients when compared to the normal individuals.