

## ABSTRACT

### SPERM DNA FRAGMENTATION FROM EJACULATED HUMAN SEMEN PREPARED WITH SIMPLE WASHING METHOD AND DENSITY GRADIENT METHOD

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**Objective:** The aim of this study was to know the sperm DNA fragmentation before and after sperm preparation in the group of normozoospermic patients and nonnormozoospermic patients.

**Method:** The design was experimental study, performed on patients who came to Andrology Clinic, dr Soetomo Hospital, Surabaya in the period of November 2012 until March 2013. Researcher examined the seminal fluid from the patients. From each patient the seminal fluid was homogenized and after that separated into three equal amount of volume. The first volume performed sperm chromatin dispersion test, the second volume performed simple washing preparation and after that the sperm chromatin dispersion, the third volume performed density gradient preparation and after that the sperm chromatin dispersion. The result would be examined under light microscope to evaluate percentage of halo formation. The positive result if the halo formation equal and above 75% and the negative result if the halo result below 75%. The data will be analysed using paired t test statistical method.

**Result:** The result of statistical analysis showed that there were significant difference between the non fragmented sperm DNA in the group of normozoospermic patients and the group of non normozoospermic patients before and after sperm preparation by using simple washing method and density gradient method. In the group of normozoospermic patients, there were no significant difference of nonfragmented sperm DNA before and after both of the sperm preparation. The same statistical analysis result occurred in the group of non normozoospermic.

**Conclusion:** Sperm DNA fragmentation in nonnormozoospermic group was higher than normozoospermic group. There were no significant difference of harvested non fragmented sperm DNA by either using simple washing and density gradient preparation. The effect of sperm preparation was depending on the basic condition of the patients sperm cells.

**Keywords:** sperm DNA fragmentation, simple washing, density gradient, sperm chromatin dispersion, halosperm