ISGE
GYNECOLOGICAL ENDOCRINOLOGY
THE 18TH WORLD CONGRESS
7-10 MARCH 2018 FLORENCE, ITALY

P130. Dna fragmentation, a nuclear evaluation for sperm production during life years.

K Cázarez Pérez (MX) [1], H Godoy Morales (MX) , J Gutiérrez Frusch (MX) , I Mendiburu G. Cantón (MX) , J Lozano Sánchez (MX) , M Estrada (MX) , J Avilés (MX)

Introduction:
In the last ten years DNA fragmentation (DNA-f) has become the gold standard in spermatozoa nuclear evaluation however standardization is still needed. Sperm are highly specialized cells with DNA specifically programed and condensed to be released during the fertilization process. The events required for DNA condensation expose the genetic material to possible damage.
Objectives:
To demonstrate the relation between age and DNA-f, due to nuclear packaging process.
Methods:
Semen samples where obtained by masturbation. Samples were analyze using WHO 2010 parameters and Halosperm commercial assay (SCD) was used to evaluate DNA fragmentation following manufacturer´s instructions. Statistical analysis was done using JMP 12; normalization of population using Shapiro-Wilk and Spearman correlation ($p<0.05$) was used to determine significance.
Results:
347 samples were studied with a normal distribution. Medan age was 39 years (23-58); median DNA-f was 23.49% (4-85%). There was a positive Spearman correlation between age and DNA-f 0.219 ($p <0.0001$).
Conclusions:
Our study suggests that DNA-f and age are strongly correlated. We believe the decreasing levels of testosterone in older patients affect the DNA packaging process due to lack of stimulation on nuclear testosterone receptors. Advanced age may increase the rate of abnormalities in the anatomic structure involving spermatogenesis. We found an association between DNA-f and age however we need a larger population to evaluate the impact of age on nuclear development and to understand the pathophysiology behind these abnormalities.

[1] Hospital Angeles Pedregal