

## The effects of advancing age on semen quality and sperm DNA fragmentation index

Carlos Rivas, Láyonel Acosta, Jheny Díaz, Lissett Chiscul, Elmer Chavez and Luis Gonzales  
Gestar In Vitro, Perú

**Background:** The aim of the present study was to determinate the correlation between the advancing age on semen quality and sperm DNA fragmentation index.

**Methods:** Prospective study conducted at the Laboratory of Andrology "Gestar In Vitro" (Chiclayo – Perú). 693 patients were analyzed from September 2013 to September 2017. The semen samples were analyzed according to the criteria WHO 2010. The Index Sperm DNA fragmentation (IFA) was determined using the test Sperm chromatin Dispersion. For determination on the median was used SPSS 22 software. In the population was determined the Spearman correlation between sperm parameters and IFA and age.

**Results:** The patients' ages ranged 17 to 70 years. The means and median were 37.73 and 37 years respectively. The patients were divided into four groups: <30 years, 30-39 years, 40-50 years


and ≥50 years. We determined an inverse correlation between the age and volume ( $r=-0.134$   $P=0.000$ ), progressive motility ( $r=-0.136$   $P=0.000$ ), normal morphology ( $r=-0.101$   $P=0.008$ ), vitality ( $r=-0.167$   $P=0.000$ ). We determined a significant positive correlation between age and IFA ( $r=0.302$   $P=0.000$ ). Patients ≥ 45 years showed higher levels of IFA (23.5% vs 16%  $P=0.000$ ) compared with patients <45.

**Conclusions:** The results indicate that advanced age effects semen quality and increases the IFA.

### Speaker Biography

Dr Carlos Rivas is a physician in reproductive medicine. He is the medical director of Gestar In Vitro center, he is the member for Latin American Net of Human Reproduction and society of Gynecology and Obstetrics in Peru. He is also attached with membership of association and society of reproductive medicine.

e: carlosantoniorivast@gmail.com

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