Objective: Describe the relationship between the duration of sexual abstinence and the percentage of sperm DNA fragmentation
Design: Descriptive, retrospective, observational study
Environment: Private Assisted Reproduction Unit
Patients: 127 patients who came for a direct spermatobioscopy and sperm DNA fragmentation as a study of infertile couples between 2011 and 2013.
Interventions: none
Main outcome measured: percentage of sperm DNA fragmentation and sexual abstinence time prior to the taking of sperm sample
Results: We observed lower levels of DNA fragmentation in patients with leukocytospermia and shorter abstinence in the direct spermatobioscopy. We found a positive relationship between the percentage of sperm DNA fragmentation and days of sexual abstinence (p 0.057). The average of fragmentation in our population was 27.76 ± 15.42% and an average of 3.74 ± 3.108 days of sexual abstinence. In those patients with infection, which translates as leukocytospermia in the direct spermatobioscopy, it is noteworthy that there is a positive correlation between the percentage of DNA fragmentation and the days of sexual abstinence (p 0.05). On the other hand, in the absence of infection, the percentage of DNA fragmentation showed a negative relationship with the days of sexual abstinence.
Conclusions: The time of sexual abstinence immediately before a sperm collection directly correlates with the degree of DNA fragmentation in patients with leukocytospermia. This relationship could be explained by the prolonged exposure of sperm to an environment rich in reactive oxidative species (ROS) as in the case of a testicular infection.