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[Andrologia](#). 2014 Apr 27. doi: 10.1111/and.12286. [Epub ahead of print]**Investigation of the association between the outcomes of sperm chromatin condensation and decondensation tests, and assisted reproduction techniques.**[Irez T¹](#), [Sahmay S](#), [Ocal P](#), [Goymen A](#), [Senol H](#), [Erol N](#), [Kaleli S](#), [Guralp O](#).**Author information****Abstract**

The main purpose of this prospective study is to examine possible influences of abnormalities of sperm nuclear condensation and chromatin decondensation with sodium dodecyl sulphate (SDS)-EDTA on outcomes of intrauterine insemination (IUI) or intracytoplasmic sperm injection (ICSI) cycles. Semen samples from 122 IUI and 236 ICSI cycles were evaluated. Before semen preparation for IUI or ICSI, basic semen analysis was performed and a small portion from each sample was spared for fixation. The condensation of sperm nuclear chromatin was evaluated with acidic aniline blue, followed by sperm chromatin decondensation by SDS-EDTA and evaluation under light microscope. Ongoing pregnancy rate was 24% and 26.2% in the IUI and ICSI groups respectively. The chromatin condensation rate was significantly higher in the ongoing pregnancy-positive group compared to the negative group, both in IUI ($P = 0.042$) and ICSI groups ($P = 0.027$), and it was positively correlated with ongoing pregnancy rate in both IUI and ICSI groups ($P = 0.015$, $r = 0.214$ and $P = 0.014$, $r = 0.312$ respectively). Chromatin decondensation rates were not significantly different in neither of the groups. These results indicate that IUI and ICSI outcome is influenced by the rate of spermatozoa with abnormal chromatin condensation. Sperm chromatin condensation with aniline blue is useful for selecting assisted reproduction techniques (ART) patients.

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KEYWORDS: Aniline blue, assisted reproductive techniques, ongoing pregnancy rate, sperm chromatin condensation, sperm chromatin decondensation

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