

Journal of Andrology, Vol 17, Issue 2 164-172, Copyright © 1996 by The American Society of Andrology

JOURNAL ARTICLE

Influence of semen collection method on ejaculate characteristics in the common marmoset, *Callithrix jacchus*

J. M. Morrell, I. Kuderling and J. K. Hodges
Deutsches Primatenzentrum, Gottingen, Germany.

A source of normal spermatozoa (sperm) is required for many andrological and reproductive studies. Ideally the method used for semen collection should be repeatable and reliable but should not influence sperm characteristics or sperm function. Two methods of semen collection from marmosets, vaginal washing after copulation and electroejaculation, were compared in terms of the success rate in obtaining samples and the characteristics of the sperm suspensions. Vaginal washing was shown to be a reliable, repeatable, and apparently non-stressful method of obtaining ejaculates, with 8 out of 10 males ejaculating on at least four of the five attempts. The semen was of good quality as assessed by conventional means, and the sperm were highly fertile when used for artificial insemination (AI; 100% conception rate). In contrast, fewer ejaculates were obtained from the same males by electroejaculation (success rate 30%), sperm survival in vitro was reduced compared to sperm collected by vaginal washing (0.93 +/- 0.15 days for electroejaculated sperm compared to 1.98 +/- 0.3 days for sperm from vaginal washing), and the number of animals giving birth after AI was smaller (0 vs. 6; $P < 0.05$). The proportions of motile (74.8 vs. 70.7%), live (84.7 vs. 81%), and morphologically normal (91.9 vs. 87.6%) sperm in the ejaculates were not affected by the semen collection method, but velocity parameters, such as curvilinear velocity, straight line velocity, and average path velocity, as assessed by computerized motility analysis, were significantly lower in vaginal washings than in electroejaculates ($P < 0.023$, 0.008, and 0.008, respectively). Mean angular deviation and beat cross frequency were greater in vaginal washings than in electroejaculates ($P < 0.016$ and 0.008, respectively). Therefore the effect of semen collection method on sperm function should always be considered when designing reproductive studies.

This Article

- ▶ [Full Text \(PDF\)](#)
- ▶ [Alert me when this article is cited](#)
- ▶ [Alert me if a correction is posted](#)

Services

- ▶ [Similar articles in this journal](#)
- ▶ [Similar articles in PubMed](#)
- ▶ [Alert me to new issues of the journal](#)
- ▶ [Download to citation manager](#)

Citing Articles

- ▶ [Citing Articles via Google Scholar](#)

Google Scholar

- ▶ [Articles by Morrell, J. M.](#)
- ▶ [Articles by Hodges, J. K.](#)
- ▶ [Search for Related Content](#)

PubMed

- ▶ [PubMed Citation](#)
- ▶ [Articles by Morrell, J. M.](#)
- ▶ [Articles by Hodges, J. K.](#)