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JOURNAL ARTICLE

Issues in the statistical analysis of sperm motion data derived from computer-assisted systems

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Computer-assisted sperm motion measurements present certain features that must be accounted for in statistical analyses. Some are specific to this type of data, whereas others are standard considerations. For example, the measurement of multiple sperm from individuals creates correlations that must be accounted for if each sperm's measurement is used, and unequal variances may arise that need to be addressed if an average measurement from the individual is used. Also, the limitations on the ranges of some measurements create discrepancies between observed and actual means and may make treatment-related effects more difficult to detect--a circumstance that has an impact on study design. When variables that are truly continuous are measured in a discrete fashion, odd effects may arise and care is needed. Other considerations, such as the shapes of distributions and correlations among various measurements, should also be examined. Attention to these details of statistical analysis are vital to proper interpretation of data.

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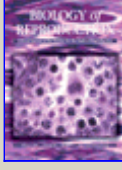
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