

Sperm DNA fragmentation testing – clinical utility

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The expert panel made a tremendous effort to propose guidelines on the emerging trends of sperm DNA fragmentation testing and its clinical utility based on the available latest scientific evidence (1). Panel presented it in a systematic manner by a practical approach with four common clinical case scenarios.

In the era of rising incidence of male infertility for various reasons and inability of conventional semen analysis to guide decision making, it is very much needed to have more advanced and reliable tests to guide proper decision making for better outcomes. In the past few years, management of male infertility has undergone rapid changes with the introduction of novel genetic concepts and newer therapeutic interventions. There is growing evidence signifying the potential role of DNA fragmentation in male infertility. Sperm DNA damage (DNA fragmentation and/or abnormal chromatin packaging) can carry adverse reproductive outcomes clearly evident by the fact that infertile men possess more sperm DNA damage than do fertile men (2-5).

In this review article, the panel systematically summarized the available methods for SDF testing and their clinical utility. They have shed the light on relevant conditions that are commonly encountered by male fertility specialists. Clinical varicocele, unexplained infertility, assisted reproduction and exposure to lifestyle factors were particularly explored with their respective clinical utility of sperm DNA fragmentation in decision making.

This article can be considered a reference guide for practicing specialists to further evaluate and effectively treat men with male infertility. Authors structurally presented

the information from various studies on the topic and made a simple practical approach with common clinical case scenarios. I find their recommendations very much relevant. Future research and accumulated clinical experience will further refine our understanding of sperm DNA damage and its clinical value.

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Footnote

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