LABORATORY REPORT

Redcliffe labs

Patient Name	:		
DOB/Age/Gender	:	Bill Date	:
Patient ID / UHID	:	Sample Collected	:
Referred By	:	Sample Received	:
Sample Type	:	Report Date	:
Barcode No	:	Report Status	:

CYTOGENETICS REPORT

SPERM DNA FRAGMENTATION ANALYSIS REPORT

Sample Type : Semen sample

Specimen Description : Sample Quality is Optimum for the test

Test Methodology : Spermatozoa DNA Chromatin Dispersion

Clinical Indication : Not Provided

RESULTS : DNA Fragmentation Index (DFI) - 36.5%

Calculation Parameter	DNA Fragmentation Index (DFI) %	PARAMETERS	VALUES	STATUS
Obtained DFI %	36.5	Big halo, %	57	Without Fragmentation
No. of cell analyzed	200	Medium halo, %	6.5	Without Fragmentation
Result Status	Fair	Small halo, %	4	With Fragmentation
Normal Reference Range	< 30%	Degraded, %	7	With Fragmentation
Impression	Fair sperm DNA integrity	Without halo,%	25.5	With Fragmentation

Note: The above values relate to natural and IUI conceptions.

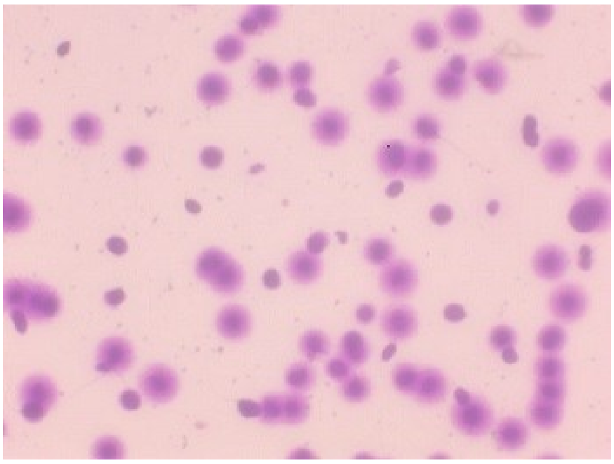


Figure : DNA Fragmentation Image of Patient Sample (40X)

INTERPRETATION : DNA Fragmentation is observed **36.5%** of the given semen sample with **Fair sperm DNA integrity** and it is **above the cut off (Positive)**. Kindly correlate clinically.

Dr. Ashish Fauzdar
PhD (Genetics), AIIMS
Head of Clinical Genomics & Cytogenetics

Booking Centre :- WALK-IN REDCLIFFE LABS- CHANDIGARH, WALK-IN CHANDIGARGH
Processing Lab :- Redcliffe Lifetech Pvt. Ltd., H-55, Sector-63, Noida, Uttar Pradesh - 201301

Patient Name	:		
DOB/Age/Gender	:	Bill Date	:
Patient ID / UHID	:	Sample Collected	:
Referred By	:	Sample Received	:
Sample Type	:	Report Date	:
Barcode No	:	Report Status	:

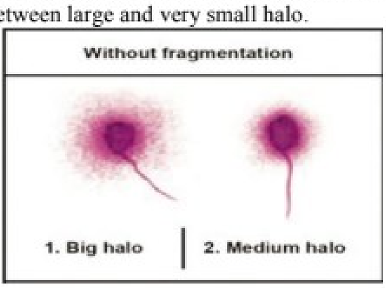
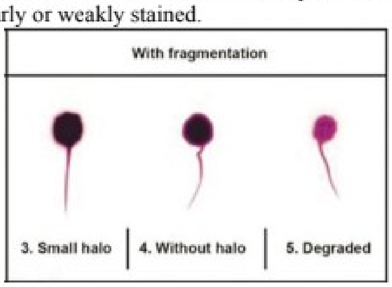
REAGENTS & INSTRUMENTS :

KIT used for the detection	Candore Fragmentation Kit
Microscope	Bright field Microscope
Imaging System	Applied Spectral Imaging

PRINCIPLE OF THE METHOD :

The method is based on the sperm chromatin dispersion technique (Fernandez et al., J. Androl. 2003, Vol 24, p-59- 66). Intact unfixed spermatozoa are immersed in inert agarose microgel on a pre-treated slide. An initial acid treatment denatures the DNA in those sperm cells with fragmented DNA. Following this, a lysis solution removes most of the nuclear proteins and when DNA breakage is not there, nucleoids with large halos of spreading DNA loops are produced emerging from a central core. In spermatozoa where DNA is fragmented, such a halo is either absent or is minimal.

CLASSIFICATION OF SPERMATOZOA DONE IN THIS TEST AFTER TREATMENT

Spermatozoa without DNA fragmentation	Spermatozoa with DNA fragmentation
1. Spermatozoa with big halo: Those whose halo width is similar or higher that the minor diameter of the core. 2. Spermatozoa with medium sized halo: Those whose halo size is between large and very small halo.	1. The halo width is similar to or small than 1/3 of the minor diameter of the core. 2. Those which show no halo at all and present a core which is irregularly or weakly stained.
	

USES OF SDF ASSAY :

1. To distinguish which couples are suitable for treatment by IUI.High SDF values have been shown to reduce the efficacy of intra -uterine insemination (IUI) from 16% to 4% (Bungum et al., 2004) or lower (Duran et al., 2002).
2. To provide answers to cases of unexplained infertility, ART failure or repeated abortions. High SDF levels have been shown to influence fertilization rate (Muriel et al., 2006a, Muriel et al., 2006b) and embryo quality (Velez de la Calle et al., 2008), leading to repeated pregnancy loss (Carrell et al., 2003)

Reference Range

DNA Fragmentation Index (% DFI) - % sperm cells containing damaged DNA

≤ 15 % DFI	Excellent Sperm DNA integrity
> 15 % to < 30 % DFI	Good Sperm DNA integrity
> 30 % to < 50 % DFI	Fair DNA integrity
≥ 50 % DFI	Poor DNA integrity

Dr. Ashish Fauzdar
PhD (Genetics), AIIMS
Head of Clinical Genomics & Cytogenetics

Patient Name	:		
DOB/Age/Gender	:	Bill Date	:
Patient ID / UHID	:	Sample Collected	:
Referred By	:	Sample Received	:
Sample Type	:	Report Date	:
Barcode No	:	Report Status	:

Further References :

R.K. Sharma, T. Said, A. Agarwal (2004), Sperm DNA damage and its clinical relevance in assessing reproductive outcome, Asian J Androl, jun:6 139-148.

Dr. Ashish Fauzdar
PhD (Genetics), AIIMS
Head of Clinical Genomics & Cytogenetics

Terms and Conditions of Reporting

1. The presented findings in the Reports are intended solely for informational and interpretational purposes by the referring physician or other qualified medical professionals possessing a comprehensive understanding of reporting units, reference ranges, and technological limitations. The laboratory shall not be held liable for any interpretation or misinterpretation of the results, nor for any consequential or incidental damages arising from such interpretation.

2. It is to be presumed that the tests performed pertain to the specimen/sample attributed to the Customer's name or identification. It is presumed that the verification particulars have been cleared out by the customer or his/her representation at the point of generation of said specimen / sample. It is hereby clarified that the reports furnished are restricted solely to the given specimen only.

3. It is to be noted that variations in results may occur between different laboratories and over time, even for the same parameter for the same Customer. The assays are performed and conducted in accordance with standard procedures, and the reported outcomes are contingent on the specific individual assay methods and equipment(s) used, as well as the quality of the received specimen.

4. This report shall not be deemed valid or admissible for any medico-legal purposes.

5. The Customers assume full responsibility for apprising the Company of any factors that may impact the test finding. These factors, among others, includes dietary intake, alcohol, or medication / drug(s) consumption, or fasting. This list of factors is only representative and not exhaustive.