SPERM CHROMATIN DISPERSION ANALYSIS REPORT

Specimen Description: Sample quality is optimum for the test.

METHOD:

Sperm cells were chemically treated and their nucleoids observed under brightfield microscopy. These sperm nucleoids on the slide were grouped based on comparison of the halo radius (r) to the diameter of the core (d) into four of the following patterns:

1. Nucleoid with large-sized haloes (r > d)
2. Nucleoid with medium-sized haloes (r = d)
3. Nucleoid with very small-sized haloes (r < d)
4. Nucleoid with no halo (only core of nucleoid present).

One hundred spermatozoa were assessed in each slide and the percentage of nucleoids belonging to each of the four patterns was noted. Those with absent haloes and small-sized haloes were grouped under spermatozoa with the presence of DNA damage, and those with medium-sized and large-sized haloes were grouped under spermatozoa without DNA damage.

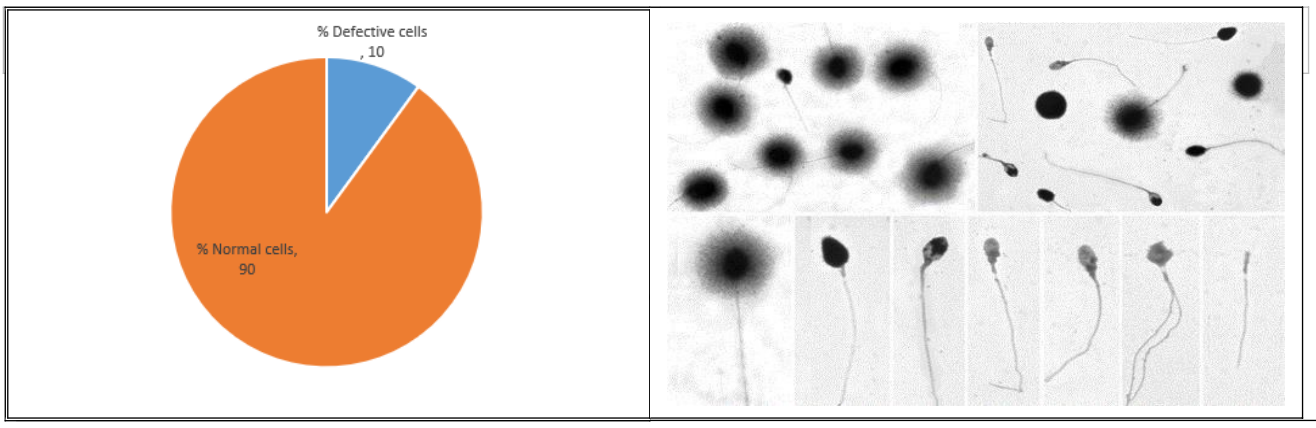
Sperm DNA fragmentation index (SDFI) was calculated using the formula: SDFI = 100 × number of sperms with DNA damage/ number of sperms counted.

RESULTS

No. of cells with Large Halo (LH) "A"	No. of cells with Medium Halo [MH] "B"	No. of cells with Small Halo (SH) "C"	No. of cells without any Halo (WH) "D"	% of cells with fragmented DNA (C+D)/(A+B+C+D) x 100
50	40	5	5	10

Fig-1: Sperm nucleoid morphology analysis showing % of cells with fragmented DNA

Fig-2: Sperm with different size Halos



COMMENT: DNA fragmentation is seen in 10 % of the sperm cells analyzed.

INTERPRETATION

Range of DNA Fragmentation Index (DFI) i.e. sperm cells containing damaged DNA

<15% DFI: Excellent to Good sperm DNA integrity
16-25% DFI: Good to Fair sperm DNA integrity
26-50% DFI: Fair to Poor sperm DNA integrity
>50% DFI: Very Poor sperm DNA integrity

BIBLIOGRAPHY

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