Review of: "Partial illustration of human sperm DNA via microscopy and quantitative analysis of nucleotides"

Mohammad Hossein Nasresfahani¹

¹ Royan Institute for Biotechnology

Potential competing interests: The author(s) declared that no potential competing interests exist.

The study titled "Partial illustration of human sperm DNA via microscopy and quantitative analysis of nucleotides" is aiming at an interesting topic in the field of Andrology. The study has numerous shortcomings, it is unprofessionally written and definite conclusions cannot be derived, so the manuscript is not suitable for publication. Please see my comments below:

The title is not well designed. I do not understand what the author means by partial illustration? please rephrase.

Considering the study was part of a dissertation in Australia, why only one author.

Introduction:

The authors are jumping from one topic to the other, it would be better to focus on the topic of their research.

The English needs editing, as an example: "are not just medical detectors but all demonstrate a piece of the puzzle of sperm structure even sometimes in dinucleotide level" This sentence is not clear, please edit:

Materials and methods:

I suggest to reformat the initial paragraph of materials and methods.

I do not understand why "the spermatozoa recovered from the high and low-density regions of Percoll gradients" should show the internal structure and patterns?

The initial approach to CMA3 staining is not according to literature, can you explain was this approach was implemented.

Results and discussion:

I do not understand the below question and its relevance to the study.

“Since hundreds of samples have been lost through the process of preparation, repeated purifications and quantifications, these novel results have culminated of remained 12 final samples quantified by HPLC”.

If data obtained from “DNA were achieved from low or high percoll gradients and not necessarily paired” why they are not paired?

There is no mention of swim up in the materials and methods (Sperms samples after swim up wash colored by giemsa banding used for microscopy)

The below sentence is meaningless

“This significant data does not complete the old matched the major nucleotides in human sperm structure.”

Sperm is the highly methylated cell in our body, why should the 50% fraction with less mature sperm be more highly methylated than 100% which contain more mature sperm.

How can from two image, one can conclude the below sentence:

“Confocal photos of CMA3 stained cells have demonstrated that chromatids are established in a defined spatial geometry through the sperm head”

The figure are not easy to follow.