

Images in clinical medicine

Five good quality blastocysts retrieved via the physiological intracytoplasmic sperm injection dish HA binding method in a 50-year-old female

Aasisjot Kaur,  Akash More

Corresponding author: Akash More, Department of Wardha Test Tube Baby Centre, Datta Meghe Institute of Medical Sciences, Sawangi, Wardha, Maharashtra, India. aakashmore87@gmail.com

Received: 13 Jun 2022 - **Accepted:** 17 Jun 2022 - **Published:** 12 Jul 2022

Keywords: Physiological intracytoplasmic sperm injection, in vitro fertilization, hyaluronan-specific receptor

Copyright: Aasisjot Kaur et al. Pan African Medical Journal (ISSN: 1937-8688). This is an Open Access article distributed under the terms of the Creative Commons Attribution International 4.0 License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Cite this article: Aasisjot Kaur et al. Five good quality blastocysts retrieved via the physiological intracytoplasmic sperm injection dish HA binding method in a 50-year-old female. Pan African Medical Journal. 2022;42(196). 10.11604/pamj.2022.42.196.35901

Available online at: <https://www.panafrican-med-journal.com//content/article/42/196/full>

Five good quality blastocysts retrieved via the physiological intracytoplasmic sperm injection dish HA binding method in a 50-year-old female

Aasisjot Kaur¹, Akash More^{2,&}

¹Department of Anatomy, School of Allied Health Science, Datta Meghe Institute of Medical Sciences, Sawangi, Wardha, Maharashtra, India,

²Department of Wardha Test Tube Baby Centre, Datta Meghe Institute of Medical Sciences, Sawangi, Wardha, Maharashtra, India

&Corresponding author

Akash More, Department of Wardha Test Tube Baby Centre, Datta Meghe Institute of Medical Sciences, Sawangi, Wardha, Maharashtra, India

Image in medicine

Physiological Intracytoplasmic Sperm Injection (PICSi) is a scientific approach used to aid the embryologist in the selection of sperm in Intracytoplasmic Sperm Injection (ICSI), a specific kind of In Vitro Fertilization (IVF). A polystyrene culture dish with three microdots of hyaluronan adhered to the inside bottom serves as the PICSi sperm selection device. The cumulus coating of the oocyte (egg) contains hyaluronan, and the head of a mature sperm contains a hyaluronan-specific receptor that permits mature sperm to bind to hyaluronan. Immature sperm, on the other hand, do not bind. The PICSi Sperm Selection Device allows you to choose mature sperm based on their

capacity to bind to a specific target hydrogel of hyaluronan. The PICSi Sperm Collection the Selection Device imitates the natural binding process transferring mature sperm to the oophorous cumulus, a crucial phase in the natural selection process fertilisation. After that, the sperm is deposited on a specific plate. This plate includes a few drops of a synthetic substance that coats the

oocytes spontaneously, comparable to hyaluronic acid. The embryologist will be able to quickly identify those spermatozoa of acceptable quality and sufficient maturity that remain attached to these drops for microinjection of the oocytes.

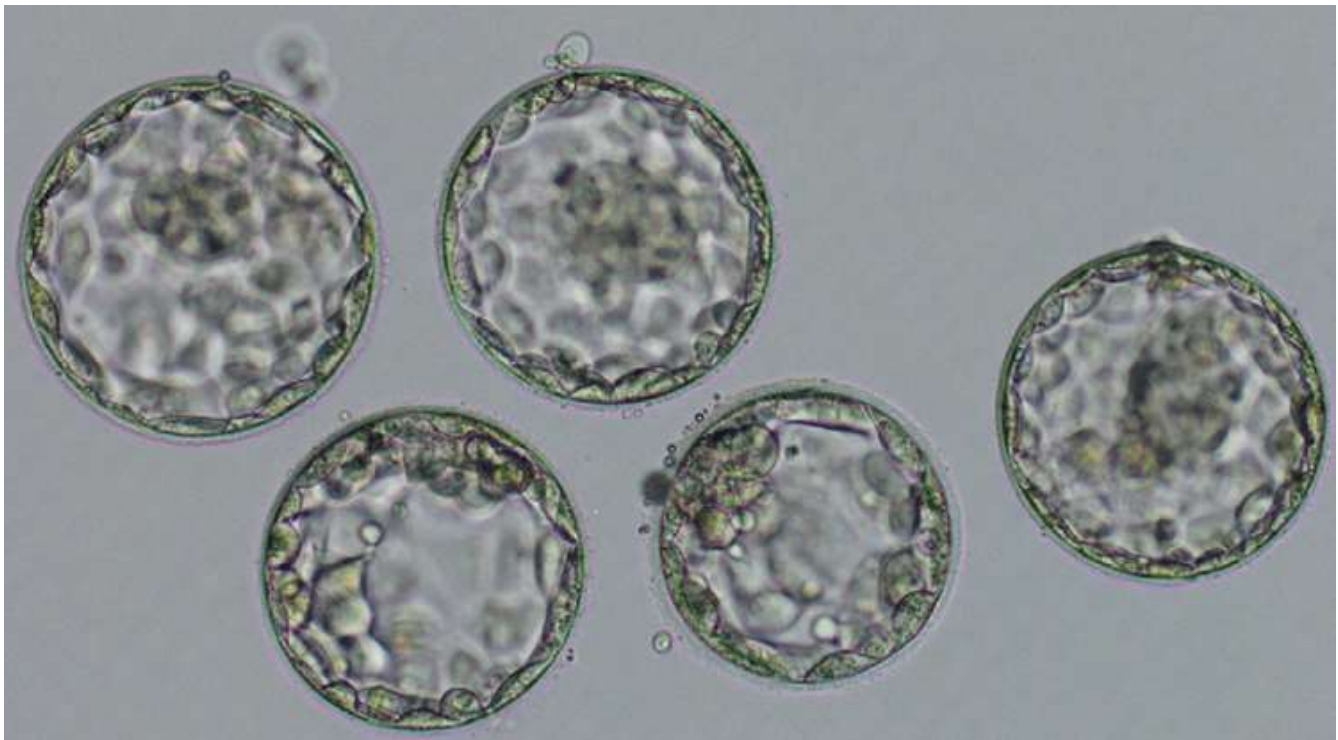


Figure 1: microscopic image showing 4AA blastocysts retrieved via the PICSi dish HA binding method