



ORIGIO® ANDROLOGY

HBA® Slide & PICSI® Dish

Significantly reduce the risk
of early miscarriage

CooperSurgical

Fertility and Genomic Solutions

Selecting the right sperm is critical

Men with low sperm count often carry semen with damaged DNA. These unfit sperm, with compromised development and damaged DNA, can look completely normal and healthy, but if picked for fertilization can lead to poor embryo quality and early pregnancy loss.

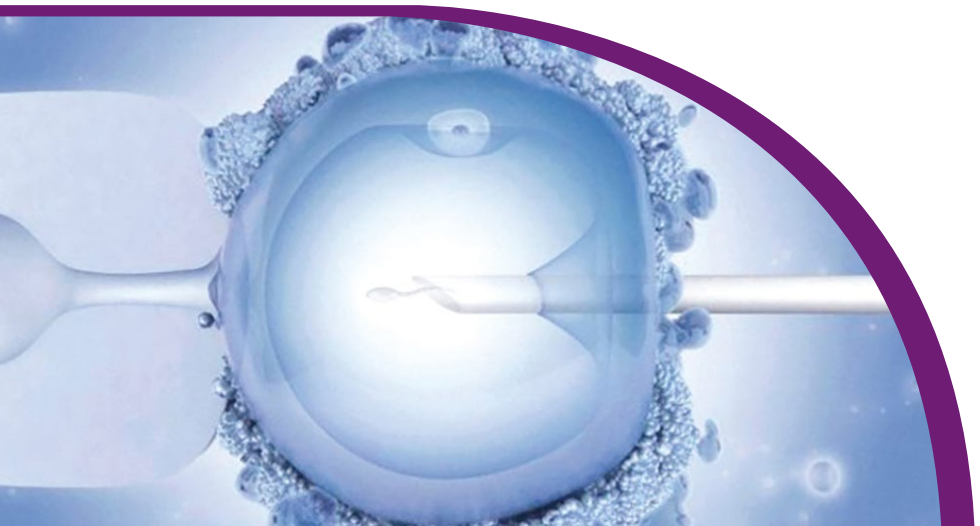
Did you know?

- The role of the male factor in infertility is often overlooked
 - Male factor is the cause of 40-50% of all infertility cases
 - In most cases, sperm are selected for ICSI by assessing their morphology (good looks)
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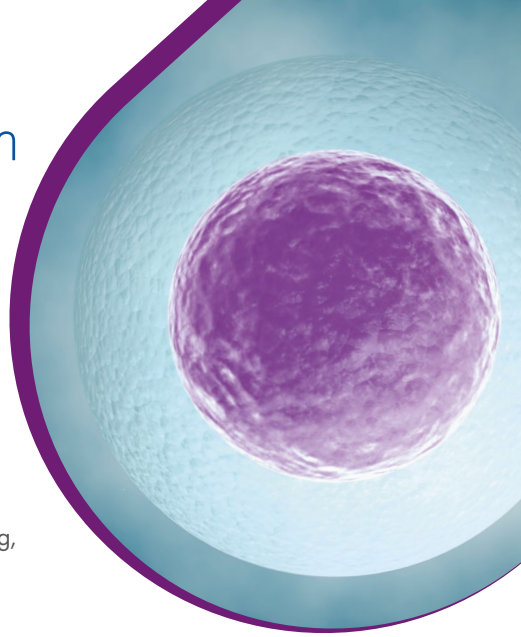
Intracytoplasmic Sperm Injection (ICSI)

ICSI is a common ART treatment indicated when male factor is involved. A sperm sample is assessed under a microscope and a healthy looking sperm is then selected and injected directly into the human egg cell (oocyte) for fertilization.

Selecting a sperm for ICSI based on its ability to bind to hyaluronan, also known as hyaluronic acid (HA), reduces the chance of picking an unfit, DNA-damaged sperm, and has been shown to reduce the risk of early miscarriage¹.



HA-binding sperm diagnostics and selection



Sperm selection by hyaluronan (HA) binding can lower rates of early miscarriage.

When a mature sperm reaches the HA-rich cumulus complex surrounding the human egg, it binds and initiates fertilization.

Only fully matured sperm have developed HA receptors and can bind to the cumulus complex; immature sperm cannot. These immature sperm are also found to have higher rates of DNA damage and are more likely to carry an abnormal number of chromosomes²⁻⁴.

What is hyaluronan?

- Hyaluronan, also known as hyaluronic acid (HA), is a substance that naturally occurs throughout the body. It is also the major component of the cumulus complex that covers the human egg cell (oocyte)
- A sperm's ability to bind to HA correlates to maturity, strict morphology (structurally normal), and high DNA integrity (intact genes⁵)

What is the cumulus complex?

- The gel-like substance that covers the human egg cell (oocyte). It is made primarily of cells glued together by HA
 - The cumulus complex protects and supports the egg cell as it grows
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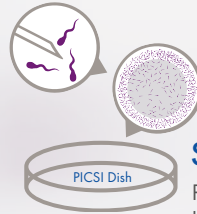
The Hyaluronan Binding Assay (HBA) provides an easy, reliable screening of mature, high-quality sperm in a sample. Male patients with a low binding score (less than 65%) will benefit from sperm selection in the PICSI Dish where only the mature (good) sperm will bind to a drop of HA, ensuring easy selection.

The HBA Slide and PICSI Dish were tested in a large multicenter study to investigate their effectiveness in the ICSI procedure. The study found that using the HBA Slide and PICSI Dish together led to a significant reduction in pregnancy loss¹.



First step

HBA Slide: Qualitative sperm assessment



Second step

PICSI Dish: Pick the best sperm for ICSI

The HBA Slide and PICSI Dish were developed in the USA and are currently being used by professionals in more than 50 countries worldwide. They are manufactured by Biocoat, Inc. and distributed by CooperSurgical Fertility and Genomics Solutions.

Next Step

Discuss with your clinic if the HBA Slide and PICSI Dish may be a useful option for you.

References

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2. Jakab A, et al. Fertility and Sterility. 2005;84:1665–73
3. Huszar G, et al. Reproductive BioMedicine Online. 2007;14:650–63
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