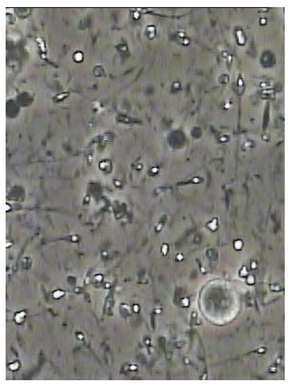
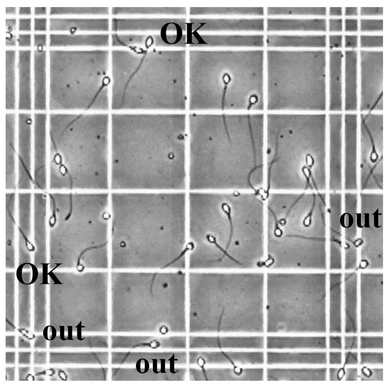
Semen Examination Requires Global Quality Rise

Conclusions

The road to reliable results from human semen examination **has still not reached acceptable levels**. This is important for *clinical care of men* with disorders in the male genital organs, and for the *scientific development of Andrology and Reproductive Medicine*. Each laboratory should implement available **training standards**, **laboratory procedures**, and use **adequate equipment**. Furthermore, access to **external quality control** covering the basic characteristics and **compliance in scientific publications** need further development.





Introduction

The examination of human semen raises many challenges. The human ejaculate has few similarities to other human body fluids: it is **formed at ejaculation** by **sequential addition** of different contents resulting in a **non-homogenous distribution** of cells and secretions.

For a long time, focus for semen examination has been on the prediction of IVF outcome, neglecting that the ejaculate can provide important **information about functions of the male genital organs**.

There are reliable procedures, not the least by laboratory recommendations from the **WHO**[1]. Recently an **international standard**[2] was published to support accreditation of laboratories performing semen examinations. The **implementation** of reliable techniques has been **very slow. True compliance** with reliable laboratory techniques and transparency in scientific publications is **almost non-existent**[3]. Recently, an **international appeal** was addressed to the scientific and clinical society and to journals publishing results from human semen examinations to **improve standards**[4].

Aim

Improved global compliance with existing standards for the examination of human ejaculates

Methods

- Robust techniques – with adequate equipment
- Appropriate training
- Internal Quality Control
- External Quality Assessment
- Implementation of publication transparency

Results

Robust techniques are available by WHO manual and ISO standard, where appropriate techniques, equipment and control measures are described.

Basic training is available at least in Europe by the European Society of Human Reproduction and Embryology (ESHRE www.eshre.eu) and Andronet (www.andronet.cat)/EAA (European Academy of Andrology www.andrologyacademy.net) but further in-house training is essential.

Few External Quality Assessment programs offer testing of all four basic assessments (*concentration, four-class motility, vitality, and morphology with four categories of abnormalities*).

For improvement of publication standards, at least one leading scientific journal is actively planning to require full transparency regarding laboratory techniques and recommend publicly accessible repository of data.

References

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