PESA & microTESE Procedures

What is the PESA procedure?

PESA, or percutaneous epididymal sperm aspiration, is a procedure in which a fine needle is inserted into the epididymis and sperm cells are collected.

What is the microTESE procedure?

microTESE, or microsurgical testicular sperm extraction, is a process in which a small amount of a man's testicular tissue is removed in order to extract viable sperm cells. Sometimes both testicles have to be explored to find viable sperm.

Why are these procedures performed?

These procedures are for men who do not have enough sperm in their ejaculate to succeed with traditional methods of conception.

Doing this may allow a man to father his own child and avoid the use of a sperm donor at a fertility clinic and possibly even the need to undergo vasectomy reversal surgery.

Who is a candidate for PESA or microTESE?

Candidates for PESA or microTESE should be in good general health and have realistic expectations about the procedure, what it entails, and the potential side effects and risks as they recover. In broad terms, men with no sperm in their ejaculate can be placed into one of two categories: Obstructive and non-obstructive azoospermia.

Obstructive Azoospermia: occurs when there is a blockage formed in the tubes (vas deferens) that carry sperm from the testicles. This may be congenital or the result of a vasectomy.

Non-obstructive Azoospermia: refers to cases in which a man's semen contains little to no sperm due to a lack of sperm production.

The Procedure and Follow-up:

The PESA and microTESE procedure involves directly removing sperm from the epididymis or testes with a very fine needle. This tissue is examined under a microscope and viable sperm are retrieved. If no sperm are found in this initial sample,

the surgeon can make a small incision in the scrotum and remove more testicular tissue as needed. Generally it is performed under local or general anesthesia. The process known as intracytoplasmic sperm injection (ICSI) is used after sperm are extracted. This involves injecting the sperm cell directly into the egg to ensure proper insemination and fertilization. Fortunately, with the use of ICSI, many men will still have the opportunity to use their own sperm for IVF. As long as there is some sperm in the testicle, these sperm can usually be obtained and individually inserted into their partner's (or donor's) eggs.

In many cases, testicular sperm are much more scarce and consequently more difficult to freeze. Typically, there is only enough sperm recovered for one IVF procedure, and if further IVF attempts are needed, the microTESE procedure will need to be repeated.

The procedures generally take 30 minutes to 2 hours each and you will most likely go home the same day. Patients will generally experience soreness and discomfort in the testicles and groin for a day or two, more if needle extraction is unsuccessful and an incision needs to be made. You will be prescribed antibiotics and pain medication to help with healing and prevent risk of infection.

Patients will follow-up in the clinic for a postoperative visit 1 to 2 weeks after the procedure.

Important Contact Information

Midtown Urology

911 W. 38th Street, Suite 200

(512) 451-7935 phone

(512) 451-7965 fax

If you need to reach the doctor after hours for an urgent matter, please call our office at 512-451-7935 and follow the prompts to be connected with the on-call provider.

You may also go to Seton Main Emergency Room on 38th and N. Lamar. Please only go to this hospital as our physicians have privileges there.

Hospital for Emergencies

Seton Main Medical Center

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