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Review Article

Review article No-scalpel vasectomy

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Abstract:

Introduction - A no-scalpel vasectomy is a male sterilization procedure in which a surgeon makes a small hole in the scrotum and removes part of the vas deferens, the tubes that transport sperm so it can mix with semen.

No-scalpel vasectomy (NSV): Also known as a **"key-hole" vasectomy** is a vasectomy in which a sharp hemostat (as opposed to a scalpel) is used to puncture the scrotum.

No scalpel vasectomy (NSV) provides a simple and safe method of male sterilization. The vas deferens is delivered with a small puncture in the scrotal skin followed by ligation and excision. This is completed by covering of the prostatic cut end by the fascial sheet of the vas in order to prevent spontaneous recanalisation. The no-scalpel approach is as effective as a traditional vasectomy and takes less time to complete (about 15 to 20 minutes). And because the puncture site is so small, patients usually don't need stitches, have less pain, and heal more quickly

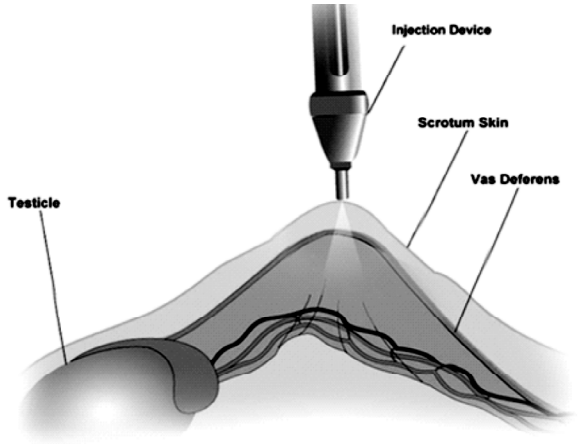
Keywords : Review; No-scalpel; vasectomy

No-Scalpel Vasectomy Procedure

A local anesthetic is administered prior to the operation during a standard vasectomy, two incisions are made in the scrotum to allow the surgeon to reach each of the vas deferens. The goal of a no-scalpel vasectomy (or keyhole vasectomy) is the same as for a conventional vasectomy-to create a blockage in the vas deferens so that sperm can no longer become part of the semen. This is done by cutting off a short piece of the vas deferens, removing it, and then ligating (tying-off), clipping or cauterizing (burning) the remaining vas ends. During a no-scalpel vasectomy, the surgeon uses a hemostat (locking forceps with a sharp tip) to puncture through the skin of the scrotal sac. Each vas (one at a time) is actually lifted out of the single puncture site, and then the occlusion is performed.

No-Scalpel Vasectomy Benefits

- Overall satisfaction in their sexual lives
- Being able to quickly resume having intercourse
- Positive postoperative psychological statuses
- Nominal postoperative pain
- Few post-procedure complications
- Quick recovery times



Advantages:

- Less invasive
- Sexual activity may be resumed as soon as you feel comfortable
- No stitches or scarring
- 40% to 50% quicker recovery with little pain
- Doesn't lower sex drive
- Less chance for bleeding complications
- Long-term, discreet contraceptive option

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- Highly effective
- Lower risk of infection (due to smaller wound, no long incision)

Disadvantages

- Still known a surgical procedure
- It requires hands-on training and lots for practice before surgeons gain proficiency in this technique
- Because sperm may still be present in the vas beyond the point of occlusion, this procedure requires men to use a back-up method of birth control for the first 15 to 20 ejaculations (or about 12 weeks) after the procedure
- Offers no protection against sexually transmitted infections or HIV
- Must schedule an additional doctor's visit to make sure that there are no more sperm present in your semen
- Vasectomy reversal procedures are available, they are technically complex, expensive, and have variable success rates.

Effectiveness

The no-scalpel vasectomy is extremely effective-99.85% to 99.9% effective, but this is based on the man using back-up birth control until he has been cleared by the doctor that there is no sperm left in his semen.

Side Effects and Surgical Complications

- **Pain :** Any pain or discomfort should stop after about a week. Most pain will respond well to mild analgesics.
- **Infection :** A small amount of redness, bruising and swelling is normal.
- **Granulomas :** A benign (noncancerous) lump may develop as a result of leakage of sperm from the cut end of the vas into the scrotal tissues, resulting in an inflammatory reaction.
- **Epididymitis :** This occurs when inflammation at the site of the vasectomy causes swelling of the epididymis (the tightly-coiled tube connecting the efferent ducts from the rear of each testicle to its vas deferens). Swelling should subside within about one week.
- **Abscesses :** These are the result of infection from the operation, or may be picked up post-operatively. Abscesses are very rare.
- **Erectile Dysfunction or Decreased Sexual Desire :** These can occur in the form of impotence, premature ejaculation or painful intercourse. The cause may be mostly psychological in nature; the vasectomy may exacerbate previous difficulties and problems between sexual partners. Counseling may be required to resolve difficulties.

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