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## Elective Vasectomy: A Study of 843 Patients

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Vasectomy is currently the most widely used method of sterilization. It has proven itself to be an effective, uncomplicated method. In 1970, one out of seven men whose wives were between 30 and 44 years of age had undergone this procedure. The simplicity of the procedure lends itself to use in the office of the family physician. No other specialty is better suited to provide the medical, social, and family dynamics evaluation necessary prior to performance of this sterilization procedure. Vasectomy is a useful technique to be taught to family practice residents, and it is a valuable adjunct to the services offered to patients. This paper is based on a study of 843 vasectomies done by family physicians in an office setting over a five-year period.

### Methods

At a visit prior to the procedure, the patient was interviewed with his spouse, if married. At that time he was provided with information regarding the procedure. He and his spouse were given a full verbal description of the procedure. The medical

and social implications were discussed with particular emphasis placed on the remote possibility of effective surgical reversal. The possibility of spontaneous reanastomosis of either vas deferens was discussed. No strict criteria for rejection were established prior to the accumulation of the data of this particular study. Those patients with existent medical disease were evaluated for their medical problems in an appropriate manner. Psychosocial contraindications were few, but those problems were given special attention.

Patients with emotional or psychiatric illness were closely evaluated; if necessary, a psychiatrist was consulted. Patients with no children by either partner were discouraged unless the marriage was of five-years duration. Opposition by a patient's spouse was grounds for rejection unless legally separated or divorced. After this preoperative evaluation was completed satisfactorily, the patient was scheduled for surgery.

The surgical procedure was relatively simple. The scrotum was shaved, painted with antiseptic solution, and draped. The spermatic cord was palpated and the vas deferens isolated bilaterally. The physician held the vas deferens in a pinching fashion between thumb and forefinger. The overlying scrotum was infiltrated with 1 to 2 cc of 1 percent lidocaine without epinephrine. A deep injection of

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**Table 1. Postoperative Complications in 843 Patients**

Complication	Incidence	
	Number	%
1. Epididymitis	15	1.8
2. Abscess formation	13	1.5
3. Epididymo-orchitis	5	0.6
4. Prostatitis	4	0.5
5. Hematoma	4	0.5
6. Decreased libido	3	0.4
7. Hydrocele	3	0.4
8. Recanalization	2	0.2
9. Spermatocele	1	0.1
10. Unfavorable pathology report	0	0.0
<b>Total</b>	<b>50</b>	<b>5.9</b>

lidocaine was then made into and around the spermatic cord.

A small incision of 1 to 2 cm was made in the scrotum and the vas deferens gripped with an Allis clamp. The vas was delivered through the incision. By sharp and dull dissection the vas was stripped for a distance of 1 to 2 cm. Mosquito forceps were applied to the vas approximately 1.5 cm apart, and the length of vas between them was excised. The cut ends of the vas were ligated with 2-0 chromic suture, and the distal end was turned back on itself and tied back inferiorly. The ends of the vas were then reinserted deep into the scrotum, and 3-0 plain suture was used to close the skin. The procedure was then repeated on the other side.

Following the procedure, both specimens were submitted for pathological examination, and the results were recorded in the patient's chart.

The patient was advised to return in one week for recheck and again after 15 ejaculations for a sperm count. He was advised to use contraception for that interval. The use of an athletic supporter was advised for several days. Bedrest and ice packs were advised for the day of surgery. Tub baths were not recommended for five to seven days. Intercourse and showers were allowed as tolerated. If the semen analysis showed any sperm per high-powered field the patient was instructed to continue the contraceptive method and to return after six more ejaculations.

## Results

Postoperative evaluation was performed one week after the procedure. Specific questioning was directed at symptoms of pain, swelling, difficulty with intercourse, or fever. Incisions were checked, and instructions for sperm count were given. Semen analysis of fresh ejaculate showed no sperm after ten ejaculations in 83 percent of patients, and no sperm after 20 ejaculations in an additional 14 percent of patients. Three percent of patients had no sperm after 30 ejaculations. Semen analysis was repeated three months later. All analyses performed at three months were negative. The method of birth control was discontinued when the sperm count was zero.

The postoperative complications are listed in Table 1. All of these rates compare favorably with the literature searched.

## Comment

Comparing these results with those in the literature, this study of 843 patients shows vasectomy to be relatively uncomplicated. It is a procedure well within the capabilities of a family physician. It provides a relatively safe method of sterilization and should therefore be an important part of the curriculum in family practice residency programs.

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