CHAPTER 12
Surgical Management of Male Infertility

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DIAGNOSIS AND TREATMENT OF OBSTRUCTIVE AZOOSPERMIA

Vasectomy Reversal
Vasectomy is the most common cause of obstructive azoospermia. There are three major aspects to vasectomy reversal. The first concerns techniques for obtaining a reliable reanastomosis of the vas deferens. With modern microsurgery, accurate reanastomosis should be achievable in almost every case. The second aspect relates to the detrimental secondary effects of vasectomy, such as pressure-induced epididymal damage as a secondary result of vasectomy. The third aspect concerns microsurgically bypassing this secondary epididymal obstruction.

Microsurgical Approach. It is advisable to practice in animals before doing such surgery on humans.1–12 For the best mucosal approximation in the human where lumina are of different diameter (because of chronic obstruction and increased pressure), I recommend a nonplinted, two-layer approach (Fig. 12–1). A one-layer anastomosis provides poorer mucosal approximation when lumen diameters differ. A splint of any kind should never be used, and is only an excuse for not being certain one has obtained a good anastomosis. It results in sperm leakage, inflammation, and more scarring.

It is not necessary to determine preoperatively what type of vasectomy was performed. Often a very large segment has been removed, and in the majority of cases that we have come across, the vasectomy has extended well into the convoluted portion. Such cases would have been considered impossible to correct with conventional techniques. With microsurgical techniques, they merely require a little more dissection, but essentially no change from a standard routine.

The preparation of the two ends of the vas deferens microscopic anastomosis is best performed with X 2½ loupé magnification. The healthy ends above and below the fibrosis are freed up several centimeters, and often more than that if a large gap has to be bridged. The more one frees up healthy tissue from surrounding attachments, the more easily the two ends will bridge any gap between them. As it is critical to have a tension-free anastomosis, no effort at anastomosis should be made until the ends above and below the obstruction have been adequately freed up. One generally need not fear devascularizing the vas deferens. The blood supply around the
CONCLUSIONS

Preoperative diagnosis and localization of the high intraabdominal testis is most reliably and easily accomplished by laparoscopy. These high testicles are best placed into the scrotum by dividing the spermatic vessels. Microsurgical reanastomosis to the inferior epigastric vessels is recommended to prevent partial or complete testicular atrophy, and to maximize the eventual prospect for fertility. Because we know that adults with bilateral cryptorchidism can recover fertility after the testes are placed in the scrotum, it is important not to compromise blood supply in the mistaken notion that these testicles are not very good anyway. There certainly is some hope for fertility if orchidopexy is performed with proper attention to blood supply.

REFERENCES


31. Schoysman R: "Operative Treatment of Ductal Obstruction and/or Agenesis". Presented at the meeting of the American Fertility Society, Miami Beach, April 1977.


