



MICROSURGICAL VASECTOMY REVERSAL

Vasectomy reversal has become a reality due to new microsurgical techniques. The operating microscope allows the tiny lumen of the vas deferens to be re-approximated in perfect alignment. Microsurgical sutures are less than 20 microns in diameter (size 10-9 sutures – a human hair is 2 – 3 times larger). These sutures are extremely inert, eliminating tissue reaction and any inflammatory response. This microsurgical technique done under high power with an operating microscope is far superior to techniques using the naked eye and optical loop magnification.

Associate Professor Appu uses a Zeiss Operating Microscope which has the capability of enlarging an object 40 times its size. 8-0 nylon microsurgical sutures with a 70 micro needle are used to perform an inner layer to exactly align the lumen of the vas.

The fluid from the testicular end of the vas after the old vasectomy site is important. If the fluid is clear or opalescent then motile or non-motile sperm are seen under the microscope. If the fluid is very thick and pasty this could indicate epididymal damage caused from back pressure from the vasectomy. Frequently damage is present in the epididymal duct which obstructs the duct at that point. A regular reversal will not work in that setting. If sufficient length is present from the abdominal or upper end of the vas it is possible to sew the lumen of the vas to the epididymal duct above the “blow-out” where sperm quality is good. This procedure is called a vasoepididymostomy and is done only if a blow-out is found.

Post-operative technical success is best measured by seminal analysis. The patency rate (the percentage of patients with sperm in the ejaculate) is greater than pregnancy rate. In achieving a pregnancy, multiple factors are involved other than having a patent vasa and being able to produce viable sperm. Female fertility factors, for example, become important.

Data indicates that pregnancy is indeed possible even if the vas deferens has been obstructed for a long period of time. However successful paternity rates decline after 5 years post vasectomy. Consultation with an in-vitro specialist is recommended where female fertility factors are present.