Abstract  PURPOSE:

Vasectomy is one of the most common urological operations performed, and provides permanent contraception. Many vasectomized men ultimately seek vasectomy reversal because of unforeseen changes in lifestyle. Vasovasostomy has varying rates of success. In this study, we utilize vas deferens (VD), artery, and vein grafts to reconstruct 30% and 50% defects of the total vas deferens length.

MATERIALS AND METHODS:

Forty two male Wistar rats were divided into three groups as VD graft, carotid artery and external jugular vein transplantations. Each group was equally divided into 2 different subgroups according to the length of transplant material as 1.0 cm (n = 7) and 1.5 cm (n = 7). To evaluate whether these materials may be used for long segment vas deferens reconstruction, the patency rate, partial or total graft occlusion, and histologic examination of all specimens were examined.

RESULTS:

No patency was found in any of the grafts and many of them suffered destructive changes in anatomic structure. Sperm granulomas were determined around the testicular side anastomosis due to accumulated semen fluid which was in our belief a result of aperistaltic zone caused by the grafts.

CONCLUSION:

When the poor results obtained in our study are put into perspective, vasoepididymostomy is the only treatment method to date for reconstruction of large segment vas deferens defects