

**SUCCESSFUL TREATMENT OF OBSTRUCTIVE AZOOSPERMIA BY
CROSSOVER RIGHT TO LEFT VASOVASAL ANASTOMOSIS**

Mohammed H Durazi, FRCS, FRCSI* Nabeel H Ali, MBBS**

We report a 29 year old patient who underwent a corrective surgical vaso-vasal procedure using the contralateral vas deference of non-functioning left testis and crossing it to the right side for a successful anastomosis. Bahrain Med Bull 1995;17(4):

Obstructive Azoospermia is a common cause of infertility due to occlusion of the outflow of sperms from both testicles.

There is evidence in man¹ and in experimental animals² that unilateral testicular obstruction can lead to infertility by provoking antisperm antibody production. Therefore, testicular obstruction may produce infertility not only by directly blocking the outlet of spermatozoa from the testicles, but also by the indirect immunological consequences of the blockage³.

Since the causes of male infertility due to obstruction are potentially correctable, they should be recognised and treated. We report a patient with infertility due to blockage of the vas deference and who underwent successful corrective vaso-vasal anastomosis using the contralateral vas.

THE CASE

A 24 year old man presented in November 1992 with primary infertility of 3 years duration. On examination he was found to have normal, rather soft testes with normal vas and large bilateral varicocele. His semen analysis show azoospermia on many occasions with normal hormonal profile (follicular stimulating hormone, lutenising hormone, testosterone and prolactin) and positive antisperm antibody test (Titer 1/256).

He underwent bilateral varicocelectomy in December 1993 and during the operation the right vas was found to end bluntly in a blind dilated reservoir like structure at the inguinal Region.

* Consultant Genitourinary Surgeon
** Senior House Officer
Division of Urology
Department of Surgery
Salmaniya Medical Centre
State of Bahrain

This was tagged with a non absorbable black silk suture (Fig 1).

On postoperative follow up, the patient remained azoospermia and a fine needle aspiration cytology from the testis showed normal spermatogenesis in both sides. Six months later the patient underwent formal testicular exploration and this showed normal left testis, atrophic empty left epididymis (confirmed by biopsy) and normal but thin left vas which were patent on vasography. The right vas was brought through the septum and anastomosed to the left vas 2 cm distal to the tail of the left epididymis (one layer end to end vaso-vasal stented anastomosis). Figure 2 shows the post trans vasovasal right to left anastomosis and ligation of left vas. Examination of right vasotomy-aspirate showed abundant mature spermatozoa.

Three months later the semen count of the patient rose to 38 millions with 20% motility and to 102 millions in the subsequent months. The wife became pregnant and gave birth to a healthy child. She is presently carrying another.

DISCUSSION

Azoospermia with normal size testis and a normal hormonal profile is suggestive of testicular obstruction and may require exploratory scrototomy to correct the obstruction^{3,4}.

Unilateral absence of the vas deference is found in 5% of patients and this may be associated with azoospermia, especially if associated with a variety of other problems on the contralateral side such as testicular atrophy, post infection fibrosis or congenital anomalies⁵. Sometime it is also associated with urological abnormalities such as pelvic kidney or renal agencies.

To our knowledge this is the first case of trans-vasovasotomy (right to left) with ligation of the left vas distal to the epididymis, with a successful outcome.

CONCLUSION

Contralateral vas deference can be used to overcome problems related to obstructed or absence of ipsilateral vas.

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