EVALUATION OF HIGH LIGATION OF INTERNAL SPERMATIC VEIN IN PATIENTS WITH PRIMARY VARICOCELE AND OLIGOSPERMIA

Thesis

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INTRODUCTION

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A varicocele is a pathologie alteration in the venous circulation of the testis. (Brown, et al,1967). It is an abnormal tortuosity and dilatation of the veins of the pampiniform plexus within the spermatic cord. (Campbell, 1978). On the other hand, others define it as a state of varicosity of the cremasteric and occasionally the testicular veins.(Baily & love's, 1977). Hill et al (1977) through a variety of nadiological procedures, cpassified varicocele into three different groups, including varicosity involving the internal spermatic vein alone, pure cremasteric varicocele and mixed internal spermatic and cremasteric varicosities. It has been estimated that 98 per cent of varicoceles occur on the left side, while the remainder exist on the right side alone or as a bilateral condition. (Campbell, 1978). It has been thought that varicocele is an innocent condition that could maximally be accompanied by scrotal or groin pain, without serious complications. (Olson and Stone, 1949).

The only indication for operative interference has been for long the admission to the military service (Thomson- Walker, 1948).

Varicocele was mentioned as a cause of male infertility as early as 1880, by a British Surgeon named Barifield. (Zorgniotti, 1975) . In 1928, Macomber and Saunders reported restoration of fertility in men following varicocele surgery.

However, it was not until Selbi Tulloch (1952) reported restoration of spermatogenesis in an azoospermic man with varicocele, that real notice was taken of the problem. This has been emphasized later on by other investigators: Davidson (1954), Tulloch (1955), Scott (1962); Charny(1962), Mac leod (1965) and Shafik (1972).

The principal cause in varicocele infertility is a spermatogenic defect. (Tulloch,(1952), Dovidson (1965) and Brown et al (1976). The seminal picture seen in subfertile men with varicocele was described in 1965 by Mac leod. Oligospermia of varying degrees was noted, but of more importance were the signs of a marked impairment of the motility of the sperms and a definite increase of immature and tapering sperm forms in the ejaculum. Indeed, although the sperm count frequently improves following ligation of the varicocele, the response is often limited to an improvement in motility and a decrease in immature sperm forms.

The reason that varicocele causes male infertility has not been completely elucidated. The possible responsible mechanisms include a change in the temperature of the scrotum and testis, reduced Oxygen tension in testicular circulation, toxic metabolic products from the adrenals or the kidney and venous stasis which could impair spermatogenesis. A previous study by Shafik and Gaber (1977) had demonstrated the venous tension within the spermatic cord veins both in normal and in varicocele patients, as this would help in the degree of success after different operattions.

There are many operative procedures for txeatment of varicocele and these include: high ligation, multiple ligatures. Plication operation (Shafik, 1972),fascial grafting of the spermatic crod((Shafik,1973) and tunical sling operation (Shafik, 1974).

AIM OF THE WORK

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The aim of this study is to evaluate the effect of the high ligation of the left internal spermatic vein (Palomo's operation) on the spermatogenic function of the testis in patients with primary varicocele and suffering from oligospermia.

REVIEW OF LITERATURE

THE BLOOD SUPPLY
OF
THE TESTIS AND EPIDIDYMIS

The Arterial Supply of the testis and epididymis:

The principal arteries of the testis and epididymis are:

1- The internal spermatic artery.

2- The deferential artery.

3- The external spermatic artery.

. The internal spermatic artery (testiculer artery

The internal spermatic artery arises from the front of the aorta immediately below the renal artery and passes obliquely downwards and laterally behind the peritoneum, resting on the psoas major muscle; The right artery lies infront of the inferior vena cava and behind the horizontal portion of the duodenum, the right colic and ileocolic arteries, the root of the mesentery, and the terminal part of the ileum. The left artery passes behind the inferior mesentéric vein, the left colic artery and the lower part of the descending colon. Each artery passes infront of the genitofemoral nerve, the ureter and the lower part of the external iliac artery. It sends a branch to the ureter as it crosses the latter structure and continues with the spermatic cord through the inguinal canal to the medial side of the epididymis. Before entering the testis, a small branch is sent to the globus major.