INTRODUCTION

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Varicocele is defined as elongation, dilatation and tortuousity of the veins draining the testis and its surrounding (pampiniform pleuxs and/or cremasteric plexus and/or vasal plexus) resulting from reflux of venous blood along the internal spermatic vein ***(Korinano et al., 1970).***

Varicocele has been implicated as a cause of male infertility on the basis of three observations:

1. The incidence of Varicocele in infertile male population has been noted to be higher than in general population.
2. In some subjects, the presence of Varicocele is associated with abnormalities in the seminal fluid and testicular histology.
3. Varicocelectomy has been noted result in improvement in semen quality in 50 to 80% of cases and pregnancy rates of about 20% have been reported ***(Rodriquez. Rigau et al., 1978.).***

The prevalence of varicocele in general population reported to be up to 20%. The incidence of varicocele in adult male infertility clinics has been reported to range from 21% to 41% ***(Morag et al., 1984,).***

Varicoceles are rare before puberity but first appear between 10 and 14 years. Once a varicocele has developed, there is evidence that damage to the testis may be progressive ***(Kass et al., 1989).***

Various surgical and percutaneous approaches are used in varix ligation. The testicular vein may be tied above the internal ring, Palomo approach or high ligation ***(Palomo, 1949),*** at the internal inguinal ring, Ivanissevich or inguinal approach ***(Ivanissevich, 1960,)*** or at the scrotal neck, scrotal approach. The latter approach is not widely used because the testicular vein may have many branches and it is difficult to be sure that they have all been ligated. Also, it is difficult to distinguish veins from branches of the testicular artery, giving a risk of devascularisation and gangrene of the testis. The inguinal approach is more popular but has the same disadvantages ***(Hargreave, 1993).***

The original Palomo approach has the disadvantage of post operative hydrocele due to ligation of the lymphatic vessels, because the veins and the artery are ligated en-mass. The more popular modified Palomo approach where the veins are dissected off the artery and ligated has the disadvantage of missing those veins branching through the back of the inguinal canal lower down and often seen travelling with or close to the vas ***(Coptcoat, 1992).***

The percutaneous approach (transvenous percutaneous embolization under radiological control) has 15% failure rate and carries the hazards of vessel perforation and embolus migration ***(Lynch et al., 1993).***

With new era of laparoscopy with good illumination and magnification, it should be possible to dissect the veins around the artery and those perforating veins at the posterior wall of the inguinal canal ***(Hagood et al., 1992 and Donovan and Winfield, 1992).***

According to different Authors, varicoccle incidence in unselected population fluctuates from8 to22% but in selected population affected by sterility incidence ranges from 21 to 39%. However other Authors have demonstrated that about 50% of patients suffering from varicocele have semen alterations. Various mechanisms have been suggested for testicular dysfunction associated with varicocele: intrascrotal hyperthermia, relfux , important semen alterations are observed in patients suffering from grade 2 and 3 varicocele and especially these patients must undergo surgical operation. According to recent findings, better results about the improvement of semen quality are obtained by operating children in pubertal age. This clinical approach allows a presentation of testicular hypotrophy or, when this is already present, its reversibility'. Varicocele surgical treatment makes use of traditional techniques microsurgical or not and mini-invasive techniques. After renouncing of intrascrotal varicocelectomy, traditional techniques provide ligature and section of ectasic spermatic veins, after a surgical high (at level of the internal inguinal ring) or low (over inguinal canal) skin incision. Microsurgery allows recognition and protection of lymphatic and arterial vessels and execution of microsurgical anastomosis between venous spermatic and ileo-femoral circle vessels, when this is necessary. Inernal spermatic vessels and execution of microsurgical anastomosis between venous spermatic and ileo-femoral circle vessel, when this is necessary. Internal spermatic vessels and vas deferens can be visualized through the laparoscope and so laparoscopic varicocele treatment was suggested.

Left varicoceles have been detected in up to 40 of infertile patients, isolated right varicocele is rare (2%) in normal or infertile are more important. Recently radiographic occlusion techniques are also utilized (internal spermatic vein retrograde scleroembolization); the percentage of relapses is between 4 and 11% with no risk of postvaricocelectomy hydrocele but with risk of loss of kidney (migration or the ballon or coil into the renal vein). Surgical treatment of varicocele produces a significant improvement in semen analysis in 60 to 80 precent of patients affected by testicular dysfuction. Pregnancy rates after varicocelectomy are including from 20 to 60 percent with most series averaging about 35 percent ***(Austion et al., 1998)***.