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Original Article

CLINICAL PRESENTATION OF VARICOCELE AND DIFFERENT MODALITIES OF TREATMENT AT PEOPLES UNIVERSITY OF MEDICAL & HEALTH SCIENCES HOSPITAL NAWABSHAH.

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ABSTRACT

Aim of Study: To evaluate and study the clinical presentation of varicocele and different modalities of treatment

Study Design: Prospective observational study:

Place and Duration: Two years study from October 2008 to September 2010, conducted in Department of Surgery at Peoples University of Medical and Health Sciences Hospital Nawabshah.

Patients and Methods: The study comprises 50 patients, all were admitted from Surgical Outpatient Department (O.P.D) and patients of infertile couples were referred from Gynaecology O.P.D as a male infertility.

The patients were fully evaluated after history, clinical examination and specific investigations, ultrasound of abdomen, Doppler & Duplex scan of testis, semen analysis, hormonal assay, MRI, testicular biopsy and general assessment. All Patients of varicocele included out of 50 patients 48 patients under went surgery. 1 Patients was treated by embolization technique and 1 patient was treated by sclerothropy due to unfit for anaesthesia.

Result: In this study of there was total 50 patients of varicocele. age ranged between 16 to 65 years, Out of 50 patients 38 patients were presented with dragging sensation 9 patients were present heaviness and pain and 3 patients with testicular atrophy and infertile, on the basis of semen analysis, hormonal assay and testicular biopsy. 39 patients were operated through inguinal approach ,6 patients were operated through retroperitoneal approach, 3 patients were operated by laparoscopic procedure, 1 patient was treated by sclerotherapy due to unfit for anesthesia .

Conclusion: Varicocele is more commonly seen in young male speciality in second to third decade of life. Young male commonly present with left varicocele and dragging sensation. Patients can be treated through inguinal approach, retroperitoneal approach, minimal invasive procedure like laparoscopic technique and embolization or sclerotherapy.

Key words: Varicocele, dragging sensation, infertility, embolization, sclerothropy, varicocelectomy.

INTRODUCTION

Varicocele means dilatation and varicosity of pampiniform plexuses of testicular vein. Varicocele is unilateral as well as bilateral. Varicosities develops either primary or secondary due to defective drainage of the flow of testicular vein[1]. Left testicular vein drain into left renal vein and right testicular vein drain into inferior vena cava[2]. Spermatic vein has collateral connections with other venus channels like iliac veins, pelvic vein, spermatic veins of the opposite side and cremasteric veins[2]. Retrograde flow of blood from any of these venous systems can also results in varicocele formation[3]. Patients can present with dragging sensation, heaviness of the involved scrotum either unilateral or

bilateral enlargement of scrotum after walking or standing. Long standing of varicocele patients can present with atrophy of testes[4]. In case of bilateral varicocele patients present with infertility[5]. Varicocele can be diagnosed on history, clinical examination and investigations. Patients give typical history of heaviness of scrotum after walking and standing, on examination, testicular veins fells dilated and as bags of worms. Blood test for hormonal assay, semen analysis, ultrasound of abdomen, Doppler and duplex scan of testicular vessels, MRI and testicular biopsy. After confirmation of diagnosis treatment is necessary, aim is that patients improve psychologicaly as well as physically, such as dragging sensation, heaviness and pain[6]. Patients can be treated by various different modalities of treatment include open varicocelectomy, laparoscopic varicocelectomy, radiological approach such as embolization and sclerotherapy[6]. Palomo's perform varicocelectomy in 1949 through retroperitoneal approach either low or high ligation varicocelectomy[7,8]. The main advantages of claimed for retroperitoneal approach are simplicity and avoidance of injury to the testicular artery. Now a days laproscopic varicocelectomy can be performed[9], other procedure like Percutanious sclerotherapy and embolization by Seldinger technique[10,11]. Varicocele due to secondary, means kidney tumor, treated by radical nephrectomy[12].

PATIENTS & METHODS

This prospective study was carried out in the Department of Surgery and referred patients of infertile couples from Gynaecology O.P.D as a male infertility at Peoples University of Medical and Health Sciences Hospital Nawabshah from October 2008 to November 2010.

Detailed history, clinical examination and various Investigations were taken and recorded on a proforma designed for the study. All the patients were investigated accordingly for Blood sugar, blood Urea, Serum Electrolyte/ creatinine, Blood Complete Picture, Hormonal assay, semen analysis , X-ray chest, ultrasound of abdomen, Doppler and duplex scan, C.T scan of kidney, MRI , Testicular biopsy and General assessment. Out of 50 patients 48 under went surgery and 1 patient was treated by sclerothrapy and 1 patient was treated by embolization.

Statistical Package for Social Sciences (SPSS) version 10 was used for statistical analysis of the data.

RESULTS

This was a hospital based series study of 50 patients, aged ranged between 16 to 65 years with mean age 32 years. The peak incidence of varicocele was observed in second and third decades. (Table 1)

38 Patients were presented with dragging sensation, 9 patients were presented heaviness and pain while 3 patients were presented testicular atrophy (Infertility) (Table 2)

43 Patients were presented with left varicocele, 4 patients were presented with right varicocele, and 3 patients were presented with bilateral varicocele.(Table 3)

39 patients were operated through inguinal approach ,6 patient were operated through retroperitoneal approach , 3 patients were operated by laparoscopic procedure, 1 patient was treated by embolization technique, 1 patient was treated by sclerothrapy due to unfit for anesthesia . (Table 4)

After surgery 47 patients were satisfied for surgery but 2 patients were complaining recurrence of varicocele.1 patient complained pain.

DISCUSSION

Varicocele is regarded as the most common and frequent vascular abnormality all around the world. The overall incidence was reported to be increasing world wide with changing characteristics. A long standing and unresolved issue is whether unilateral or bilateral

TABLE 1
AGE DISTRIBUTION OF PATIENTS

Age of Patients	No of Pts	Percentage
16 to 19 years	7	14%
20 to 30 years	17	34%
30 to 40 Years	18	36%
40 to 50 Years	5	10%
50 to 65	3	6%
Total	50	100%

TABLE 2:
PRESENTATION OF PATIENT

Sign and Symptoms	No of Patients	Percentage
Dragging Sensation	38	76%
Pain and Heaviness	9	18%
Testicular atrophy,		
Infertility	3	6%
Total	50	100%

TABLE 3
ANATOMICAL DISTRIBUTION OF VARICOCELE

Site	No of Patients	Percentage
Left varicocele	43	86%
Right varicocele	4	8%
Bilateral varicocele	3	6%
Total	50	100%

TABLE: 4
OPERATIVE PROCEDURE

Operative procedure	No of Patients	Percentage
Inguinal ligation	39	78%
Retroperitoneal	6	12%
Laproscopic technique	3	6%
Embolization	1	2%
Sclerothrapy	1	2%
Total	50	100%

varicocele is significantly associated with dragging sensation, heaviness, pain and infertility. The diagnosis of varicocele is straight forward clinically, testicular veins are dilated and feels bags of worms. But some investigations are helpful for diagnosis and treatment purpose like semen analysis, hormonal assay, Doppler and Duplex scan of testicular vessels and testicular biopsy. Varicocele can be treated with many different modalities of treatment including open surgical varicocelectomy[13], laparoscopic varicocelectomy[14], embolization and sclerotherapic technique. Ficarra et al 2006[15], Marmer et al 2007[16], Agarwal et al (2007)[17] reported subfertile patients were improved after varicocelectomy. Cayan S et al[18] reported in his study that microsurgical procedure and high ligation varicocelectomy is the treatment of varicocele. Varicocelectomy significantly improve signs and symptoms of varicocele and semen parameters.

The varicocele was graded according to the criteria published by Lyon PR et al[19] in three grades. Sangrasi et al[20] in his study, 32 % of patients were presented with grade-II and 68 % of patients were presented with grade-III and similarly Bebars GA[21] et al in his study found majority of cases in grade-II and grade-III. In this study, 13 patients were presented with grade-II and 37 patients were presented with grade-III. Sangrasi et al[20] in his study 46 patients were having left varicocele, 04 patients were having right varicocele, 01 patient was having bilateral varicocele. In this study 43 patient were having left varicocele, 04 patients were having right varicocele, 03 patients were having bilateral varicocele. Zucchi A. et al[22] in his study 80 % of patients having history of dragging sensation and pain. In this study, 38 patients were having dragging sensation, 09 patients were having heaviness & pain and 03 patients were having testicular atrophy infertility. Sangrasi et al[20] in his study, 92 % of patients were treated with open surgical varicocelectomy and 94 % of patients were treated laparoscopic varicocelectomy. In this study, 39 patients were operated through inguinal approach, 06 patient were operated through retroperitoneal approach, 03 patients were operated by laparoscopic procedure, 01 patient was treated by embolization technique and 01 patient was treated by sclerothrapy. Ubaidullah A et al[23] reported in his study recurrence rates was 2.5 %.

In this study, 2 (4 %) patients were complained of recurrence varicocele and 01 (2 %) patient was complained of pain after surgery.

CONCLUSION

Varicocele is more commonly seen in young male second to third decade of life. Young male commonly present with left varicocele and dragging sensation. Patients can be treated through inguinal approach, retroperitoneal approach, minimal invasive procedure like laparoscopic technique and embolization or sclerotherapy.

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