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Prevalence of Clinical Manifestations of Behcet's Disease in Kerman from 1996 to 2004

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Present study reported 113 cases of Behcet's disease from out-patient clinic of rheumatology in Kerman-Iran during 8 years practice and follow up from 1996 to 2004. Male/Female ratio was 0.9/1 (47.8% male and 52.2% female). The average of age was 34.7±9.5 years (Mean±SD). The frequency of symptoms was as follows: All patients had oral aphthae (100%), genital aphthosis 75.2%, skin manifestations 81.4%, ophthalmic disease 45.1%, joint manifestation 55%, neuro-psychiatric disorders 15%, gastrointestinal disorders 9.7%, vascular manifestations 6.2% and cardiopulmonary and orchioepididimitis was rarely. Pathergy test was positive at 39%. There are some surveys of Behcet's disease in the worlds. Some symptoms were reported same as other studies like oral and genital aphthae, skin and joint manifestations, but the other symptoms were less than more studies like ophthalmologic, neurological, vascular and gastrointestinal manifestations.

Key words: Behcet's disease, clinical manifestations, Iran

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INTRODUCTION

Behcet's disease is a chronic, relapsing, inflammatory disease characterized by recurrent oral aphtae and any of several systemic manifestations including genital aphtae, ocular disease, skin lesions, neurological disease, vascular disease, gastrointestinal disease or arthritis[1-3]. The disease may have been described by Hippocrates, but was brought to the modern medical community by Turkish dermatologist Hulusi Behcet in 1936[4,5]. Behcet's disease is more common (or at least more severe) along the ancient silk road, which extends from eastern Asia to the Mediterranean. It most common in Turkey (80 to 370 cases per 100,000) while the prevalence range from 13.5 to 20 in Japan, Korea, China, Iran and Saudi Arabia. By comparison in Western countries: 0.64 per 100,000 in the United Kingdom and 0.12 to 0.33 per 100,000 in the United States[2,6-9]. Clinical manifestations of this disorder are more variable among different patients and populations. Therefore this study described clinical manifestations of Behcet's disease in Kerman-Iran during eight years rheumatologic practice.

MATERIALS AND METHODS

The subjects (n=113) were census out-patients with a clinical diagnosis of Behcet's disease made by rheumatologist. All subjects fulfilled international criteria for diagnosis of Behcet's disease[10] and were visited by a dermatologist and an ophthalmologist. When necessary patients were seen by neurologist, psychiatrist, cardiologist and gastroenterologist. All patients were followed up by rheumatologist for treatment, progression and complications. Data was collected on a standardized data collection form and fed into personal IBM computer and analyzed by Statistical Package of the Social Science (SPSS version 10) and EPI-6 software. A confidence limited (CL) at 95% was calculated for the means and the percentage.

RESULTS AND DISCUSSION

This study reported an analysis of 113 patients collected over 8 year period. The male was 54 person (47.8%) and female was 59 (52.2%). The mean age was 34.7±9.5 (mean±SD) and there was no significant difference between male and female (t=0.50, DF=111, P=0.61). The mean age at the onset was the same for both sexes. Minimum of age was 10 years old and maximum was 58. The disease was mainly seen in the forth decade of life (41.6%).

Table 1: Major manifestations of Behcet's Disease

Symptoms	Frequency	Percent	Confidence Limit
Oral aphthae	113	100.0	-
Genital aphthae	85	75.2	66.2-89.0
Skin lesions	93	81.4	72.3-99.8
-pseudofollicilitis	55	48.7	39.2-58.3
-erythema nodusom	29	25.7	17.9-34.7
-other lesions	9	8.0	3.7-14.6
Ophthalmic disease	51	45.1	35.8-54.8
-anterior uveitis	9	8.0	3.7-14.6
-posterior uveitis	6	5.3	2.0-11.2
-pan uveitis	16	14.2	8.3-22.0
-retinal vasculitis	4	3.5	1.0-8.8
-panuveitis & retinal vasculitis	16	14.2	8.3-22.0
Pathergy test	44	39.0	30.0-48.6

Table 2: Minor manifestations of Behcet's disease

Symptoms	Frequency	Percent	Confidence Limit
Joint	62	55.0	45.2-64.2
-arthralgia	21	18.6	12.0-27.0
-monoarthritis	11	9.7	5.0-16.8
-oligoarthritis	27	23.9	26.5-32.8
-sacroileitis	3	2.7	0.6-7.60
Neuro-psychitric	17	15.0	9.0-23.0
-headache	12	10.6	5.6-17.8
-panic disorder	1	0.9	0.0-4.8
-schizophrenia	1	0.9	0.0-4.8
-bipolar mood disorder	1	0.9	0.0-4.8
-general anxiety disorder	2	1.8	0.2-6.2
Gastrointestinal	11	9.7	5.0-16.8
-gastrodeudonitis	3	2.7	0.6-17.6
-GI bleeding	4	3.6	1.0-8.8
-peptic ulcer	1	0.9	0.0-4.8
-chronic diarrhea	1	0.9	0.0-4.8
-intestinal polyp	1	0.9	0.0-4.8
-hepatosplenomegaly	1	0.9	0.0-4.8
Vascular disorder	7	6.2	2.5-12.3
-superficial phlebitis	3	2.7	0.6-7.6
-deep vein thrombosis	3	2.7	0.6-7.6
-aneurysm	1	0.9	0.0-4.8
Pulmonary disease	4	3.6	1.0-8.8
-lung fibrosis	1	0.9	0.0-4.8
-pleuritis	3	2.7	0.6-7.6
Orchioepididimitis	2	1.8	0.2-6.2
Cardiac manifestation	1	0.9	0.0-4.8

Table 3: Comparison of recent data 2004 with Davatchij *et al.*[13]

	Recent study		Davatchi study	
Symptoms	Percent	Confidence limit	Percent	Confidence limit
Oral aphthae	100.0	-	95.8	95.1-96.5
Genital aphthae	75.2	66.2-89	64.0	62.4-65.6
Skin lesions	81.4	72.2-99.8	73.6	74.1-75.1
Ophthalmic	45.1	35.8-54.8	57.8	56.2-59.4
Articular	55.0	45.2-64.2	40.0	38.3-41.6
Neuro-psychitric	15.0	9.0-23.0	3.3	2.7-4.0
Gastrointestinal	9.7	5.0-16.8	8.8	8.0-10.0
Vascular	6.2	2.5-12.3	9.0	8.0-9.0
Pulmonary	3.6	1.0-8.8	0.7	0.4-1.0
Orchioepididimitis	1.8	0.2-6.2	6.0	5.2-7.0
Cardiac	0.9	0.0-4.8	0.5	0.3-0.7

All patients had oral aphthae, genital aphthosis was seen in 75.2% (CL=66.2-88.9%), skin lesion in 81.4% (CL=72.3-99.8%), eye lesion was 45.1% (CL=35.8-54.8%)

Table 4: Behcet's disease in the other studies*

	Nu	Age	M/F	OA	GA	Skin	Oph	Joi	NS	GI	Ph	OE
Japan	3316	35.7	0.98	98.2	73.2	87.1	69.1	56.9	11.0	15.5	8.9	6.0
China	98			100.0	88.5		21.4	30.6	9.2	35.7		
Korea	1454	29.0	0.64	97.5	57.0	61.0	16.4	29.5	2.5	5.8		0.6
Saudi Arabia	119	29.3	3.4	100.0	87.0	57.0	65.0	37.0	44.0	4.0	25.0	4.0
Iraq	60	29.4	3.0	97.0	83.0	75.0	48.0	48.0	10.0	10.0	17.0	22.0
Turkey	496	23.3	1.78	99.6	76.7	77.8	47.4	46.9	7.7	4.9	38.0	
Russia	35	25.8	2.18	100.0	88.5	88.5	40.0	71.4	14.2	37.1	37.1	4.2
Israel	41	27.4	4.84	98.0	88.0	88.0	76.0	29.0	29.0		37.0	5.9
Egypt	180	25.3	11.0	100.0	100.0	85.0	90.0	70.0	24.4	23.0		50.0
Morocco	316		2.45	100.0	85.0		72.0	60.0	16.0	16.1	21.8	4.0
Portugal	127		1.35	98.0	75.0		87.0	55.0				
Italy	155	25.0	2.4	98.1	73.5	85.8	91.6	76.8	16.7	34.1	18.0	19.0
Germany	103	25.0	1.19	98.0	80.0	72.0	54.0	62.0	17.0	21.0	33.0	
England	32	24.7	0.6	100.0	91.0	66.0	25.0	46.9	25.0	9.0	22.0	
Brazil	25	34.3	0.66	96.0	88.0	88.0	92.0	68.0	4.0		12.0	
Iran (Davatchi)	3443	26.2	1.14	95.8	64.0	73.6	57.8	39.9	3.3	8.8	6.3	6.0
Iran (our data)	113	34.7	0.91	100.0	75.2	81.4	45.1	55.0	15**	9.7	5.4	1.8

** Neuro-Psychitry manifestations

Nu=number of cases, M/F=male to female ratio, OA=oral aphthae, GA=genital aphthae, Skin=skin lesions, Oph=ophthalmologic, Joi=joint, NS=nervous system, GI=gastrointestinal, Ph=phlebitis, OE=orchioepididimitis

*With permission from Davatchi *et al.*[13]

and positive result on pathergy testing that read by physician at 24 to 48 h was 39% (CL=28.2-50.8%). Major manifestations of Behcet's disease were shown at Table 1. Joint manifestations like arthralgia, mono and oligoarthritis and sacroileitis were reported in 54.9% (CL=45.2-64.2%). Headache was found in 10.6% and 4.5% had psychiatric disorder. Gastrointestinal manifestations were seen in 9.7% (CL=5-16.8) that one case (0.9%) had hepatosplenomegaly. Vascular involvement were reported in 6.2% (CL=2.5-12.3) that consisted superficial phlebitis, deep vain thrombosis and aneurysm. pulmonary and cardiac manifestation were rare pulmonary fibrosis in one case (0.9%) and pleuritis in 3 cases (2.7%) and cardiac manifestation in 1 case (0.9%) were seen. Orchioepididymitis was observed in 1.8% (CL=0.2-6.2%) (Table 2).

The clinical picture of Behcet's disease is dominated by mucocutaneous and ophthalmologic manifestations but it is a multi system disease classified among vasculitides thus many signs and symptoms may be presented and picture of disease becomes varies. Iran is one of the most common geographical areas that Behcet's disease has been distributed. Several studies has reported clinical aspect of Behcet's disease in Iran but all of them has been reported from capital of Iran (Tehran)[11-12]. In complete survey Davatchi *et al.*[13] reported analysis of 3443 cases of Behcet's disease from Behcet's disease Research Unit, Rheumatology Research Center, Tehran University of Medical Sciences[13] and compared the data of recent study in Table 3 and than with other study in Table 4. There was statistical significant difference in five item between current study and Davatchi[13] oral aphthae, genital aphthae, joint manifestations, eye involvements and neuropsychiatry problems. It seems these differences originated from diagnostic criteria. Davatchi *et al.*[13] have used Iran criteria for diagnosis of Behcet's disease. Comparison between present results to other studies was given in Table 4. Oral aphthosis is one of the major criteria of International study group that had been observed in all our patients. Oral ulcers are typically the first to come and last to leave in the course of the disease, they may become less common after about 20 years[3]. Studies in China, Saudi Arabia, Russia, Egypt, Morocco and England had 100% oral aphthae in cases and other studies had oral aphthae between 95.8 (Iran) to 98.2 (Japan). Genital lesions occur in about 75% of patients. In Egypt all cases had genital aphthaeand in the other studies varied between 73.2% (Japan) to 91% (England). Recurrence is typically less frequent than oral ulceration. However scar formation may occur[3]. Cutaneous lesions occur in over one-half of patients with Behcet's disease. The skin manifestations vary[1-3]. The frequency of skin lesion in different studies was 57% (Saudi Arabia) to 88.5% in Russia. It was observed that skin lesions in 81.5% of cases. Ophthalmic disease occurs in 21 to 92% of patients with Behcet's disease (Table 4). Eye disease in present study (45%) was less than more studies. Anterior uveitis is often the dominant feature, retinal vasculitis, posterior uveitis, vascular occlusion, optic neuritis, neovascularization, secondary cataracts and glaucoma can also occur[1-3].

Patients with Behcet's disease generally present with a non erosive inflammatory symmetric or asymmetric oligoarthritis, particularly during exacerbations of illness, although polyarticular and monoarticular forms are also seen. The arthritis most commonly affects the medium and large joints, including the knee, ankle and wrist[14]. The range of joint involvement is 29-76.8% and present data

was average of them. Neurological disease occurs in less than one-third of patients with Behcet's disease and is observed more frequently in men[15,16]. In the present study there were not any neurological deficits and 12 patients were suffering from headache but the great point was psychiatric disorder in our study that confirmed by psychiatrist, which had not elucidated in the previous studies (Table 2).

Result of Table 3 revealed that 11 cases (9.7%) with gastrointestinal manifestations like gastrodeudenitis, GI bleeding and peptic ulcer, intestinal polyp and one cases with hepatosplenomegaly, in the other studies gastrointestinal ulcerations occur in some patients and it has differential diagnosis with inflammatory bowel disease. Oral aphthae frequently occur in patients with inflammatory bowel disease that are indistinguishable from oral aphthae in Behcet's disease. Vascular disorders may include aneurysm formation, arterial or venous occlusion but phlebitis is more commonly. It had 7 cases (6.2%) with vascular problems that were less than other studies, even phlebitis (range 6.3-38%).

The frequency of clinical manifestations was different in some studies, it may be cause of diagnostic criteria, duration of disease and environmental factors which affected Behcet's disease. It is certain that International Study Group Criteria[10], is the standardized and the best for diagnosis and classification of Behcet's disease.

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