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A cost analysis of Behçet's syndrome in Turkey

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***Objective*. Behçet's syndrome (BS), a common chronic inflammatory disease in Turkey, results in considerable morbidity and increased mortality. We aimed to estimate its direct and indirect costs.**

***Methods*. We studied 119 (78 male/41 female) patients with BS at our multidisciplinary BS out-patient clinic in Istanbul, between March and July 2005. The mean age and disease duration were 35 ± 9 and 10 ± 6 S.D. yrs. According to the primary clinical problem, patients were divided into: (i) ocular; (ii) vascular; (iii) neurological and (iv) mucocutaneous-joint disease subgroups. They were interviewed with a standardized questionnaire addressing: (a) direct costs such as medication, diagnostic tests, hospital visits, hospitalization fees and lodging and transportation expenses and (b) indirect costs such as lost workdays and wages. The costs were assessed retrospectively by assessing the expenses within a year of the survey and were expressed as US$ mean $\pm$ S.D.**

***Results*. The mean annual total cost per patient was US$ 3226 ± 3488 (S.D.). The direct cost accounted for 68% of the total cost. Medication expenses made up 79% of the total direct cost. About 42% of the patients reported lost workdays that averaged 119 ± 96 days S.D. Among the clinical subgroups mucocutaneous-joint involvement (US$ 1180 ± 1053) had the lowest economic impact while the neurological disease (US$ 5005 ± 2707) had the highest.**

***Conclusion*. In this first cost of illness study in BS, the neurological involvement had the highest annual cost. Direct costs were higher than the indirect costs. Drug costs were the major cost driver. BS causes considerable economic burden for the health care system in Turkey.**

KEY WORDS: Cost of illness, Behçet's syndrome, Direct costs, Indirect costs.

Behçet's syndrome (BS) is a multisystem vasculitis mainly characterized by recurrent oro-genital ulcers and sight threatening uveitis. It may also involve joints, vessels of all size and central nervous system (CNS) [1]. Turkey has the highest prevalence rate: 8–42/10 000 adult population [1–4]. BS affects males and females equally and usually onsets in the third decade of life. The syndrome runs a more severe course among the young males, and the disease severity diminishes with the passage of time [1, 5]. Some patients complain only of mucocutaneous lesions. These, nevertheless, may also affect the quality of life. A substantial number of patients suffer in addition from severe organ involvement such as eye, vascular and neurological disease. Eye involvement is the most serious manifestation of BS, and affects about 50% of the patients [1, 5]. Up to 20% of the patients with eye involvement may lose their useful vision, despite treatment [1, 5]. Major vessel disease is seen in 20–40% of the patients [1, 5] can involve both sides of the circulatory system, and lower extremity deep vein thrombosis is its most frequent manifestation. Arterial aneurysms (1–5%), especially pulmonary arterial aneurysms carry a more severe prognosis leading to death in at least one-fourth of the cases [6, 7]. CNS disease seen in a minority (5–6%) of the patients [1, 5, 8] can cause severe cognitive and motor disturbances leading to disability and increased mortality [1, 5, 8]. Overall mortality in BS was 14% (39 out of 286) among males during a 20-yr follow-up [5].

We had previously observed a high unemployment rate among patients with BS [5]. However, apart from this study we have been unaware of a formal cost of illness (COI) study in BS.

COI studies help to quantify and identify the total cost associated with a particular disease [9–14]. The COI, expressed in monetary terms, provides data on about how much society spends on a particular disease and identifies the components of the cost. This information, in turn, highlights problems in allocation of resources in health care services and related research, and ultimately leads to policy changes in the health care system.

In this study, we estimate COI among BS patients, attending a dedicated tertiary referral center in Istanbul, Turkey.

Patients and methods

The multidisciplinary BS out-patient clinic at Cerrahpasa Medical Faculty at the University of Istanbul is a dedicated clinic operating and meeting weekly since 1977. Currently there are over 6000 registered BS patients in this clinic. The main facility, the Cerrahpasa Hospital, is a 2500-bed, government funded, teaching hospital. All patients are initially evaluated by a rheumatologist, dermatologist and ophthalmologist. The patients are referred to the departments of neurology, pulmonary disease, gastroenterology and vascular surgery when necessary, and all management problems are discussed in a joint meeting. The clinic is unique in that the patient evaluation, history taking and physical examination and decision making is without charge.

Between March and July 2005 consecutive patients (see statistical analysis) fulfilling the International Study Group diagnostic criteria for Behçet's disease criteria (ISG) [15] and those with at least 1 yr follow-up were included in the study. The patients were divided into four clinical subgroups: (i) ocular,

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(ii) vascular, (iii) neurological and (iv) mucocutaneous-joint disease, according to the primary clinical problem at the time of the study. Disease duration was calculated from the time the patient historically first fulfilled the ISG criteria for BS. Treatment duration was obtained from the patient charts.

Cost assessment

The information on expenses directly or indirectly related to the disease within the preceding 12 months was collected with the help of a questionnaire (Appendix 1) after oral consent was obtained. The questionnaire also sought demographic, educational, marital and employment status.

All costs were expressed in US dollars using the purchasing power parity value of Turkey as of July 2005 (1US$ = 1.32 YTL).

Social security system in Turkey

There are three main types of social security institutions, which are supported by the government in Turkey: (i) retirement fund for the employees of the government, (ii) social security agency for labourers and (iii) official retirement fund for private- and self-employed businessmen and craftsmen. According to the Turkish Ministry of Labor and Social Security [16], about 72% of the population is under the coverage of one social security system. In our study, 87% of the patients had social security coverage (Table 1). These institutions cover a majority of the health expenses in Turkey [16, 17]. The reimbursement rate for hospitalization, investigation and hospital visits is 100%. It is 80% for the medications if the patient is employed or 100% if the patient is retired. The social security covers for all of the lost workdays up to 1 yr. If the consecutive periods of the sick absence exceed more than 1 yr, then the patient deserves an early retirement according to the severity of its disability. Apart from these social security institutions, there is another scheme, which covers full health expenditures of the underprivileged only (currently about 17% of the population). In our study the number of patients in this category was 6% (Table 1).

The cost was analysed in two parts: direct and indirect costs [9–14].

Direct costs. The total direct cost is made up of medical and non-medical costs [9–13]. The annual direct medical cost was assessed retrospectively by evaluating hospital case records for the previous year. All extracted data were also verified by patient interviews. These data included the costs of: (i) medications, (ii) diagnostic tests such as biochemical and radiological tests, (iii) emergency and or regular hospital visits, (iv) hospital facilities (with or without surgery) and (v) rehabilitation services.

The medications included those used only for BS such as azathioprine, ciclosporin, interferon-α, cyclophosphamide, colchicine, non-steroidal anti-inflammatory drugs, corticosteroids, proton pump inhibitors, aspirin and drugs for osteoporosis prophylaxis. Anti-hypertensive and anti-diabetic drugs were included if they were prescribed after BS was diagnosed. Antibiotics were excluded. The total dose for the medications was assessed according to the dose prescribed in the patient charts. The unit cost per medication was based on the pharmacy market prices set by the Ministry of Health of Turkey for the year 2005. The costs of diagnostic tests and hospitalization (including bed, medication, consultation, etc.) were calculated according to the standard unit price list, provided by the accounts department of the Cerrahpasa Medical Faculty Hospital. Five patients were submitted to CT, 15 to USG and 19 to MRI. The cost of hospital visits was neglected because, as stated above there is no hospital visit charge in our facility even though the hospital administration charged 18 USD at other out-patient clinics during the survey period. Other possible visits to private physicians or health-care professionals outside of Cerrahpasa Medical Faculty Hospital were also ignored. Furthermore, none of the patients had any surgical intervention and none had received a rehabilitation service during the study period.

TABLE 1. Demographic, clinical, marital and socio-economical variables of the patients with Behçet's syndrome

	Male ($n=78$)	Female ($n=41$)	Total ($n=119$)
Age, mean ± S.D. yrs, (range)	34 ± 9 (17–54)	38 ± 9 (25–63)	35 ± 9 (17–63)
Disease duration, mean ± S.D. yrs (range)	9 ± 5 (1–25)	11 ± 8 (3–28)	10 ± 6 (1–28)
Treatment duration, mean ± S.D. yrs (range)	7 ± 5 (1–25)	8 ± 6 (1–27)	7 ± 5 (1–27)
Married, *n* (%)	54 (69)	33 (81)	87 (73)
Education, *n* (%)			
None	1 (1)	7 (17)	8 (7)
Primary school	42 (54)	28 (68)	70 (59)
High school	23 (30)	3 (7)	26 (22)
University	12 (15)	3 (7)	15 (13)
Profession, *n* (%)			
Skilled manual/non-manual worker	43 (55)	9 (22)	52 (44)
Office worker	11 (14)	3 (7)	14 (12)
Unskilled worker	8 (10)	0	8 (7)
Retired	4 (5)	2 (5)	6 (5)
Employer	3 (4)	0	3 (2)
Student	4 (5)	0	4 (3)
Housewife	–	26 (64)	26 (22)
Economically unemployed	5 (6)	1 (2)	6 (5)
Social security	70 (90)	34 (83)	104 (87)
Main types[a]	63 (81)	34 (83)	97 (82)
Social security for underprivileged	7 (9)	0	7 (6)

[a]Three types are included: (1) retirement fund for the employees of the government ($n=18$; 11 male/7 female), (2) social security agency for labourers ($n=73$; 46 male/27 female) and (3) official retirement fund for private- and self-employed businessmen and craftsmen ($n=6$; 6 Male).

Annual direct non-medical costs include [9–13] transportation costs to health care providers and lodging expenses, stemming both from the patient and that of a member of the household who cared for the patient such as a brother, father or a spouse. The mean annual cost due to the sum of transportation and lodging was calculated as US$ 192 ± 343 per patient and was not incorporated in the total cost.

Indirect medical costs. Indirect costs were made up of productivity losses due to job loss or absenteeism [9–14]. This was estimated based on a societal perspective [9–14]. All relevant information was obtained from the individual itself or from a member of the household, if the patient was unable to communicate. All missing days including sick leave days or disabled days within a year were designated as 'workdays lost'.

The cost due to lost productivity was estimated as previously described [14] by multiplying the total number of workdays lost by the average wage (US$ 12) in Turkey for the year of 2004. The estimated average wage was calculated according to data provided by Turkish Statistical Institute [18].

There were three groups of patients with respect to employment in our study:

(i) For those who were employed and who had social security coverage for the productivity loss ($n=11$), lost workdays were counted and productivity losses were calculated based on the average salary per day in Turkey.
(ii) For those who were employed with social security but without reimbursement for the productivity loss ($n=58$) and for those who were employed without social security at all ($n=8$), the income loss was calculated by multiplying the number of self-reported days the individual was unable to attend work by the daily estimated average wage. Periods

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of income loss for group a and b were calculated based on international standard of 220 working days per year.

(iii) For those who were not employed ($n=42$), like retired people, students, housewives and economically unemployed, lost workdays and productivity loss were not calculated.

Statistical analysis

Sample size analysis was based on annual hospital visit days. The study was designed to have a statistical power of 80% with an α-level of 0.05 to detect a mean difference of 5 ± 5 S.D. hospital visit days between clinical subgroups. This yielded a minimum number of 17 patients per subgroup. We rounded this number to 20 for simplicity of calculation. We included all consecutive patients attending our out-patient clinic during the study period. The recruitment ended when the neurological group, which was the smallest group, reached 20 patients.

Distribution analysis was done using the Kolmogorov–Smirnov test. Kruskal–Wallis ANOVA test with Bonferoni correction was used for inter-group comparisons of non-normally distributed variables. The differences between direct and indirect costs of BS were analysed using Wilcoxon signed rank test. Categorical variables were compared by chi-square test. A P-value of <0.05 was considered statistically significant. All numeric values were expressed as mean $\pm$ S.D. Monetary values were expressed in US$.

Results

A total of 136 (86 male/50 female) consecutive patients seen in the out-patient clinic between March and July 2005 were initially evaluated. Out of 136, 17 (8 male/9 female) patients were excluded because their follow-up duration was <1 yr.

We studied 119 (78 male/41 female) patients. Out of 119 patients, 87 (73%) were living in Istanbul. Socio-demographic and clinical characteristics of all patients are shown in Table 1. The disease and treatment duration along with marital status were similar between males and females, while female patients were significantly older than the males ($P=0.018$). The majority of the patients (42 male/28 female; 59%) had a primary school education, 22% (23 male/3 female) had a high school education, and 13% (12 male/3 female) had a university education. Eight (1 male/7 female; 7%) patients had no education. There were significantly more males with high school or university education than females (35/78 *vs* 6/41, $P=0.001$).

There were 32 patients (27%, 16 male/16 female) with mucocutaneous-joint disease, 43 (36%, 28 male/15 female) with ocular, 24 (20%, 19 male/5 female) with vascular and 20 (17%, 15 male/5 female) with parenchymal CNS disease. Among those with vascular disease six patients had pulmonary artery aneurysms, three had vena cava thrombosis and the remaining 15 had lower extremity deep vein thrombosis. The demographic characteristics, the use of health care services and information on workday loss among subgroups and in total are shown in Table 2. The mean age and disease duration were similar in all subgroups. The mean number of hospital visits per year was significantly less among those with mucocutaneous-joint disease compared with that observed among those with ocular and neurological disease ($P=0.001$). There were significantly more patients who had been hospitalized among those with neurological disease than among those with ocular and vascular disease. None of the patients with mucocutaneous-joint involvement had been hospitalized. On the other hand, the duration of hospitalization did not differ among those patients with eye, vascular and neurological disease.

Workday loss was observed in a total of 51 patients (43%). This was higher among those patients with eye (49%), vascular (46%) and neurological disease (60%) as compared with those with mucocutaneous-joint disease (22%) ($P=0.031$). The mean annual lost workdays per individual experiencing sick leave reached 119 and 12 days, for patients and their caring household, respectively. This was again higher among those with neurological disease compared with those with mucocutaneous-joint disease for both patients ($P=0.013$) and their caretakers ($P=0.028$). Among 51 patients who could not work due to BS, nine with ocular, eight with neurological, three with vascular and one with mucocutaneous-joint disease could not work for the entire preceding year.

The components of direct and indirect cost

The mean total annual cost for a BS patient—all clinical subgroups combined—amounted to US$ 3226 ± 3488 (S.D.). As seen in Table 3, the total direct cost was 68% of the total cost, where the drug costs (US$ 1746 ± 2646) constituted 79% of total direct cost (US$ 2203 ± 2771).

The mean total annual cost was higher among those with neurological (US$ 5005 ± 2707) and ocular disease (US$ 4007 ± 4135) compared with those with mucocutaneous-joint disease (US$ 1180 ± 1053) ($P<0.001$). Direct costs were lower among those with mucocutaneous-joint disease (US$ 973 ± 641), compared with that found among those with neurological disease (US$ 2815 ± 1954) ($P=0.002$). The cost of medications was similar among subgroups, however, other components of the direct cost such as diagnostic tests (biochemical and radiological) and hospitalization fees were significantly higher among those

TABLE 2. Demographic features, use of health care services and workday loss (total and subgroups)

	Total ($n=119$)	Ocular (O) ($n=43$)	Vascular (V) ($n=24$)	Neurological (N) ($n=20$)	Mucocutaneous-joint (MCJ) ($n=32$)	P
Male/Female	78/41	28/15	19/5	15/5	16/16	0.103
Age, mean $\pm$ S.D. yrs (range)	35 ± 9 (17–63)	35 ± 9 (17–63)	33 ± 8 (19–50)	36 ± 10 (18–57)	37 ± 8 (25–54)	0.509
Disease duration, mean $\pm$ S.D. yrs	10 ± 6	11 ± 7	8 ± 5	10 ± 6	10 ± 7	0.337
Median (range)	9 (1–28)	9 (2–27)	9 (2–19)	8.5 (3–22)	8 (1–28)	
Yearly hospital visits, mean $\pm$ S.D. (range)	5 ± 5 (0–30)	6 ± 5 (1–30)	5 ± 4 (1–20)	7 ± 6 (1–22)	$3\pm2^{*,\dagger}$ (0–10)	0.001
n (%) hospitalized	24 (20)	7 (16)	5 (21)	12 (60)‡,§	$0^{\|,\P,**}$	0.008
Days of hospitalization, mean $\pm$ S.D. (range)	18 ± 10 (1–40)	12 ± 7 (1–20)	16 ± 10 (5–30)	22 ± 10 (7–40)	$0^{\|,\P,**}$	<0.001
n (%) who had workdays lost						
Patient	51 (43)	21 (49)	11 (46)	12 (60)	7 (22)*,†,††	0.031
Household	26 (22)	11 (26)	5 (21)	7 (35)	3 (9)	0.151
Lost workdays per patient experiencing sick leave, mean $\pm$ S.D. days (range)						
Patient	119 ± 96 (2–220)	134 ± 87 (4–220)	75 ± 100 (6–220)	173 ± 79 (4–220)	46 ± 78* (2–220)	0.013
Household	12 ± 9 (2–36)	9 ± 5 (2–18)	16 ± 15 (4–36)	18 ± 9 (9–36)	5 ± 2* (3–6)	0.028

*$P<0.05$: N *vs* MCJ; $^{\dagger}P<0.05$: O *vs* MCJ; $^{\ddagger}P<0.001$: N *vs* O; $^{\S}P<0.01$: N *vs* V; $^{\|}P<0.001$: O *vs* MCJ; $^{\P}P<0.001$: V *vs* MCJ;
**$P<0.01$: N *vs* MCJ; $^{\dagger\dagger}P<0.05$: V *vs* MCJ.

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TABLE 3. The components of direct and indirect costs (total and subgroups) (costs are expressed as mean ± S.D., US$)

	Total ($n=119$)	Ocular (O) ($n=43$)	Vascular (V) ($n=24$)	Neurological (N) ($n=20$)	Mucocutaneous-joint (MCJ) ($n=32$)	P
Annual direct cost	2203 ± 2771	2727 ± 3655	2396 ± 2933	2815 ± 1954	973 ± 641**	0.002
[Direct/total(%)]	(68%)	(68%)	(78%)	(56%)	(82%)	–
Medications	1746 ± 2646	2415 ± 3549	1919 ± 2803	1652 ± 1704	775 ± 589	0.132
Biochemical tests	317 ± 341	250±214	313 ± 219	664 ± 586**,‡	197 ± 188	<0.001
Radiological tests	58 ± 145	17 ± 72	87 ± 128¶,‖	202 ± 258**,‡	0.7 ± 4	<0.001
Hospitalization fees	82 ± 191	45 ± 121	77 ± 179	297 ± 306**,‡,§	0	<0.001
Annual indirect cost	1023 ± 1712	1280 ± 1788	679 ± 1490	2190 ± 2140	207 ± 783*,†	0.001
[Indirect/total (%)]	(32%)	(32%)	(22%)	(44%)	(18%)	–
Lost wages						
Patient	974 ± 1688	1240 ± 1793	625 ± 1457	2064 ± 2104**	198 ± 784	0.005
Household	49 ± 126	40 ± 86	54 ± 162	126 ± 201	9 ± 31	0.070
Total (direct + indirect) cost	3226 ± 3488	4007 ± 4135	3075 ± 3727	5005 ± 2707‡‡,**	1180 ± 1053‖	<0.001

*$P < 0.05$: N *vs* MCJ; †$P < 0.05$: O *vs* MCJ; ‡$P < 0.001$: N *vs* O; §$P < 0.01$: N *vs* V; ‖$P < 0.001$: O *vs* MCJ; ¶$P < 0.001$: V *vs* MCJ; **$P < 0.01$: N *vs* MCJ; ‡‡$P < 0.05$: N *vs* V; ‖‖$P < 0.05$: V *vs* O.

with neurological disease ($P < 0.001$). Patients with neurological (US$ 2190 ± 2140) and ocular disease (US$ 1280 ± 1788) have higher costs due to productivity loss compared with those with mucocutaneous-joint disease (US$ 207 ± 783) ($P = 0.001$). The direct costs were at least two-thirds of the total costs in all subgroups, except among those with neurological disease. In this subgroup, direct costs constituted 56% of the total costs (Table 3).

Discussion

In this study, the cost of medication accounted for 79% of the total direct costs. Similarly, in all COI studies reported from Turkey, the cost of medication made the most significant contribution [19–22]. Although we do not have formal data, we suspect that this is mainly due to the considerably lower fees/wages of health care providers in Turkey.

Going back to the cost of medications, it is important to point out that most of our patients did not have the benefit of new and costly biological agents, mainly due to lack of financial support. The most costly drug in this survey was interferon, which was, in fact, used by only a few patients ($n = 5$).

As we discussed in the earlier section of this article, the young male population in BS is the most severely affected by the disease. The same group theoretically contributes most to the general labour force. The high rate of patients who could not work due to their disease coupled with the long duration of disabled workdays should have made higher contributions to the total cost in our study. On the other hand the cost incurring from loss productivity was 32%, this time most probably indicative of lower fees/wages for the patients.

In this study, we observed that the cost of BS varies according to the type of organ involvement in fact, parallel to the severity of the clinical picture. The mean annual total cost was highest among those with neurological disease, followed by ocular and vascular disease. As expected, mucocutaneous-joint type of involvement had the lowest cost.

There were some limitations in our study. Our survey method was retrospective and data collection was subject to recall bias. Furthermore, our sample size was relatively small. Our patient selection method, which was based on calculation of sample size (as defined by 20 patients at least for each subgroup), made the prevalence rates of eye, vascular, neurological and mucocutaneous-joint diseases somewhat different from our usual experience in daily practice [5].

Furthermore, patients in our university hospital-based study may not be truly representative of the BS patients elsewhere in Turkey. Those who are well-enough not to need medical help or those with a severe disease may not have been included in this survey. Inclusion of their data might change the estimated cost.

We did not take into account the cost of out-patient visits in this study. Even if we had taken it into consideration, the amount would have been negligible in that the cost, as we mentioned above, is quite small. Furthermore, there is always the possibility that the patient profile would change if we had done this study in another geographical area in Turkey.

The burden of disease in BS is most severe early in the course. All irreversible damage such as loss of useful vision, disability and vascular insufficiency settle at the beginning of the disease. Therefore, our, as observed, prevalence-based study does not capture the lifelong economic impact of BS. Only prospective studies would be helpful in resolving this issue.

The number of adults with BS in Turkey would range between 43 570 and 228 742, when the prevalence rates of 0.08 and 0.42% are applied to the mid-year adult population count of 54.5 million according to the census of year 2004 [23]. The total annual estimated cost per patient would be US$ 3164, when we adjust the mean total cost per patient to the expected prevalence rates of the clinical subgroups in daily practice (ocular disease: 50%, vascular disease: 20%, mucocutaneous-joint: 25%, and neurological disease: 5%) [5]. Assuming that all BS patients in the country would need medical care, the projected national total cost of BS would be then between US$ 138 and 724 million. On the other hand, according to three large previous field prevalence surveys in Turkey, the proportion of BS patients who needed medical care was between 5 and 56% [2–4]. The estimated national economic impact would also be reduced when we take these ratios into account. Finally, one needs to be careful in interpreting the projected total national cost due to the small sample size of our study, and also due to the fact that the majority (73%) were residents of Istanbul.

Conclusions

This is a first COI study of BS. The mean annual cost of a BS patient followed in a dedicated tertiary clinic in Turkey was estimated to be US$ 3226 ± 3488. This amount is quite high considering the gross national income per capita in Turkey (US$ 4710 for the year 2005) [24]. Among the clinical subgroups, mucocutaneous-joint involvement had the lowest economic impact while the neurological disease had the highest. Direct

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costs were almost two-thirds of the total cost, and the drug cost was the most important cost driver representing 54% of the total costs. However, the costs due to loss productivity made 32% of the total costs. Prospective COI studies would be more accurate in defining the total disease burden in monetary terms.

Rheumatology	Key messages
	• BS causes considerable economic burden for the health care system in Turkey. • Direct disease related costs were higher than the costs related to the productivity loss. • Drug costs were the major component of the total direct cost.

The authors have declared no conflicts of interest.

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Appendix 1: The questionnaire for the cost analysis in BS

Name: ..... Record number: .....
Date of disease onset? .....
Date of treatment onset? .....
Date of birth: ..... Sex: () 1. Female () 2. Male
Marital status
() 1. Married () 2. Divorced () 3. Widow () 4. Single
Education
() 1. None () 2. Primary school () 3. High school () 4. University
Occupation
() 1. Skilled manual/non-manual worker () 5. Employer
() 2. Office worker () 6. Student
() 3. Unskilled worker () 7. Housewife
() 4. Retired () 8. Economically unemployed
Social security: () 1. No () 2. Yes 3. Type ()
Number of hospital visits due to the Behçet's syndrome during the last year: .....
Are you hospitalized due to the Behçet's syndrome during the last year?
() 1. No () 2. Yes ⇨ hospitalization duration (days): .....
Have you had any workday lost due to the Behçet's syndrome during the last year?
() 1. No () 2. Yes ⇨ time (days): .....
lost wages: .....
Has any member of your family had any workday lost due to your disease during the last year?
() 1. No () 2. Yes ⇨ time (days): .....
lost wages: .....
What were the costs due to transportation and lodging when you were coming to the hospital? .....
Disease type
() 1. Ocular () 2. Vascular () 3. Neurological
() 4. Mucocutaneous-joint
Dosage and duration of medications used for BS during last year
Medications dosage duration
Number of laboratory/radiological tests, during the last year
Name Number
1.....

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