

# Asthenic Symptoms in a Rural Family Practice

## Epidemiologic Characteristics and a Proposed Classification

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*Asthenic symptoms (eg, fatigue, lassitude, weakness) are of major concern in family practice setting, yet relatively little research has addressed this issue. A retrospective chart review over a 10-year period was conducted to better characterize these symptoms in a rural family practice providing health care to 508 adult patients. Asthenic complaints were recorded at least once in the medical charts of 164 patients (32%) with a preponderance of female patients. Peak prevalence occurred in the third decade of age and during the summer months. Associated symptoms, mainly pain and dizziness, were reported in 75% of the cases. A cause or diagnosis was not identified by the practicing physician in nearly 50% of the encounters; nevertheless, most episodes resolved spontaneously. Patients could be subclassified into three categories according to the recurrence pattern of their asthenic symptoms during the study period. The largest category (64%) included patients who had a single or two episodes and was thus termed "episodic asthenia." Forty-five patients (27%) with recurrent episodes (mean 4.4, range 3 to 10) were classified as having "recurrent episodic asthenia." A third small group (14 patients, 9%) with persistent complaints over the years but no evidence of the chronic fatigue syndrome were classified as having "chronic persistent asthenia." The proposed classification may help future research of asthenic symptoms in the family practice setting. J FAM PRACT 1990; 31:257-262.*

Fatigue, tiredness, lassitude, lack of energy, generalized weakness, and other related terms are very common presenting symptoms in family practice. They are better grouped under the more scientific heading *asthenia*, or rather, *asthenic symptoms*. Largely neglected in the past, fatigue and its equivalents have gained much interest recently, mainly in concern with the chronic fatigue syndrome,<sup>1</sup> although this entity is uncommon even in highly selected referral centers.<sup>2</sup> Much more prevalent, but relatively poorly researched, is the wide range of asthenic complaints in primary care setting. To date, only a few studies have approached the issue scientifically.<sup>3-8</sup> Some, however, have limited themselves to physicians' recorded diagnosis of fatigue, excluding patients who had another apparent diagnosis on initial visit.<sup>4,5</sup> Others have

focused on the chronic symptom type or have been mainly concerned with the psychological characteristics of these patients.<sup>6,7</sup> In some of the studies, subjects were identified by questionnaires rather than self-presenting to their primary care clinics.<sup>6,8</sup>

Epidemiologic data on the wide spectrum of asthenic complaints, regardless of whether they are associated with other symptoms, are still incomplete in family practice.<sup>9</sup> Three previous studies from the United Kingdom<sup>3</sup> and the United States<sup>4,5</sup> have addressed the issue partly, but no data are available for comparison with other societies. For example, it is not known whether asthenic complaints are inherent in certain sociocultural environments or represent a more universal phenomenon. In addition, no attempt has been made to subclassify asthenic symptoms on the basis of recurrence and chronicity or to determine the prevalence of the various patterns in family practice setting. Such data may improve the understanding of one of the most frequent symptoms in ambulatory care.<sup>10,11</sup>

The following retrospective study was undertaken to clarify these issues from the viewpoint of a rural family

Submitted, revised, June 21, 1990.

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practice in Israel providing health care to a well-characterized socioethnic community.

## METHODS

The investigated practice is a teaching family medicine clinic serving two neighboring villages located 20 miles north of Tel-Aviv, Israel, with an overall population of 1200 patients. Five hundred eight patients—with even sex-distribution—constitute the adult group (18 years of age or older). The majority of the residents are of Jewish-Yemenite origin, and many are blood related following in-community marriages. Both villages were founded 40 years ago by newly arrived immigrants from Yemen. Nowadays, in some families three generations are living in the immediate neighborhood. Most of the residents are engaged in agricultural work, mainly growing flowers. Over the last decade there has been an economic crisis in the agricultural market, and many families have had substantial debts to be paid.

The practice is staffed by a board-certified family physician and a registered nurse. Family medicine residents are trained in the clinic under supervision for 9-month periods.

Since 1978 the medical records have been organized in a problem-oriented approach. Particular attention has been paid to record all the presenting complaints as precisely as possible, frequently by using the patient's own words.

For the purpose of this study one author (E.S.) conducted a chart review of all adults to identify visits for asthenic complaints over a 10-year period (1978 through 1987). An asthenic complaint was defined as any of the following terms used by the patient (translated to English): weakness, either confined to both legs or generalized, fatigue, malaise, lack of strength or energy, or inability to perform daily tasks. A visit was included in the study whenever such complaints were recorded regardless of the presence of other symptoms or of the final diagnosis.

For each visit involving asthenic symptoms, the following data were obtained: date, age, sex, all presenting complaints, findings on physical examination, laboratory results, and the physician's diagnosis. A special emphasis was applied to the presence of asthenic symptoms on the two consecutive encounters that followed each index visit. If none was recorded, the patient was considered to have recovered from the episode. Whenever more than one episode was documented in the patient's file, all episodes were processed similarly. The average number of visits to the clinic each year during the study period was calculated for each of these patients. Major chronic med-

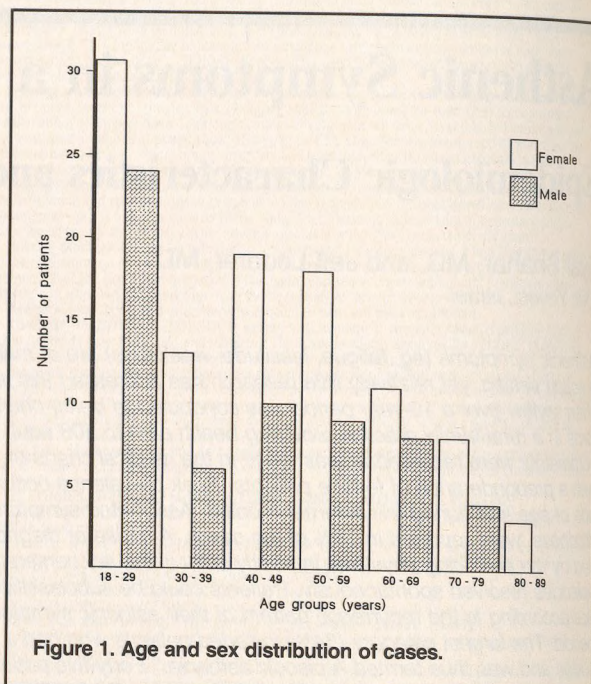


Figure 1. Age and sex distribution of cases.

ical conditions as well as chronic drug therapy were also recorded.

## RESULTS

During the 10-year study period asthenic symptoms were reported at least once by 164 patients (32% of the adult population). Women were overrepresented in this group with a female to male ratio of 1.7:1 as compared with the community sex ratio of 1:1. Figure 1 shows the age and sex distribution of these patients. Whereas asthenic complaints occurred in all age groups, they were markedly more prevalent in the third decade.

A peculiar seasonal distribution was noted (Figure 2). There were twice as many visits for asthenic symptoms during the summer months (June to September) than during the winter months (November to March).

Associated symptoms occurred frequently and were present in 298 visits (75%). One more symptom was recorded in 39%, two more symptoms in 28%, and three or more symptoms in 8% of the visits. Table 1 depicts the various symptom groups and their relative frequency. Pain (mainly headache) and dizziness, sometimes reported simultaneously, accounted for the majority of these symptoms (56% and 21%, respectively).

For further analysis of the data the patients were divided into three groups according to the recurrence and



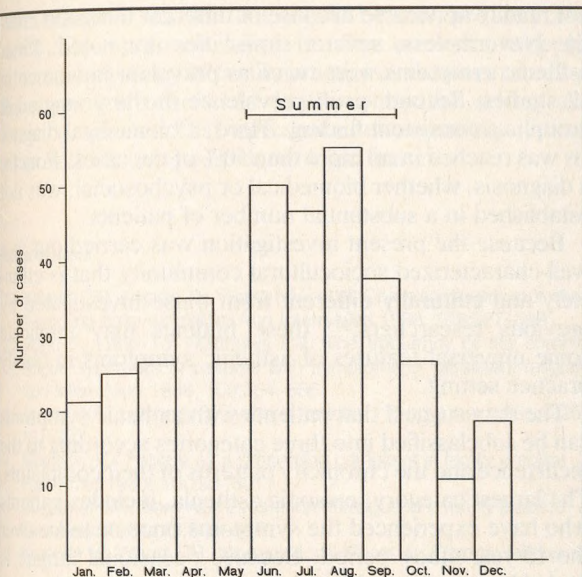


Figure 2. Monthly distribution of asthenic symptoms.

the chronicity patterns of their asthenic complaints during the study period (Table 2).

One hundred five patients (64%) who have had a single or two episodes were classified as having "episodic asthenia." Forty-five patients (27%) who have had three or more episodes (mean 4.4, range 3 to 10) were classified as having "recurrent episodic asthenia." A third small group (14 patients, 9%) with persistent complaints over the years

TABLE 1. ASSOCIATED SYMPTOMS IN PATIENTS WITH ASTHENIC COMPLAINTS

Symptom	Number	Percent
Pain	168	56
Dizziness	64	21
Fever	32	11
Respiratory	33	11
Anorexia	32	11
Mental	32	11
Gastrointestinal	28	9

TABLE 2. DISTRIBUTION OF PATIENTS WITH ASTHENIC SYMPTOMS ACCORDING TO RECURRENCE PATTERN

Classification	Number of Patients	Percent
Episodic asthenia	105	64
Recurrent episodic asthenia	45	27
Chronic persistent asthenia	14	9
Total	164	100

TABLE 3. MAIN DIAGNOSES OF PATIENTS WITH EPISODIC ASTHENIA AND RECURRENT EPISODIC ASTHENIA

Diagnosis	Number	Percent
Episodic asthenia		
Intercurrent infection	40	29
Psychiatric disorders (depression, schizophrenia, anxiety, post-traumatic stress disorder)	12	9
Anemia	7	5
Pregnancy	3	2
Others	9	7
Undetermined	66	48
Total	137	100
Recurrent episodic asthenia		
Intercurrent infection	8	18
Psychiatric disorders (depression, somatization)	7	16
Pregnancy	3	7
Anemia	1	2
Undetermined	26	57
Total	45	100

were classified as having "chronic persistent asthenia." It should be noted, however, that none of the patients in the latter group has had objective criteria compatible with chronic fatigue syndrome.<sup>1</sup>

Table 3 summarizes the main diagnoses of patients with episodic asthenia and of those with recurrent episodic asthenia. The most common cause in both groups was an intercurrent infection (29% and 18%, respectively). Psychiatric disorders, mainly depression, accounted for the next most common cause. Nevertheless, the cause remained obscure to the practicing physician in about 50% of the episodes. Of the 14 patients with chronic persistent asthenia, eight (57%) had had a previously diagnosed major illness that could have explained the symptoms. Among these were nephrotic syndrome, systemic lupus erythematosus, alcoholic liver disease, ischemic heart disease, and others.

A comparison of patients with recurrent episodic asthenia with those with episodic asthenia revealed several notable differences. Patients with recurrent episodic asthenia were more homogeneously distributed among all age groups with no peak prevalence in the third decade. Yet, a preponderance of female patients was even more marked (female to male ratio of 2:1 in recurrent episodic asthenia vs 1.5:1 in episodic asthenia). In addition, they tended to be more frequent attenders (mean number of visits per year 7.6, SD = 4.8) as compared with patients with episodic asthenia (mean 5.1, SD = 3.5) ( $P < .001$  by Student's *t* test). Other characteristics, such as seasonal variation of visits and frequency and type of associated symptoms, were similar in both groups.

Of the 14 patients with chronic persistent asthenia, 10



(70%) were women. They also tended to be frequent attenders (mean, 8.6 visits per year). The limited number of patients in this group, however, precludes meaningful analysis of the data.

Of note, although blood counts were ordered for many patients in all groups, this test has rarely led to the diagnosis of anemia (4%). In neither group have asthenic complaints ever been the presenting symptom of an occult malignancy.

## DISCUSSION

As these data indicate, most asthenic complaints in family practice setting have had an episodic nature, reflecting self-limited illness with a benign course. Thus, from the practical viewpoint, it seems that reassurance and expectant management are the best approach, while costly investigation is unjustified in most cases, as suggested by others as well.<sup>4-6</sup> Even complete blood count, which is frequently ordered in asthenic patients, was found to have a very low diagnostic yield.

Interestingly, a cause or a diagnosis could not be identified by the practicing physician in nearly 50% of the cases. This finding is not surprising considering that many patients seek health care for a variety of hidden reasons not necessarily related to pure biomedical illness.<sup>12</sup> Asthenic symptoms, being easy to reproduce and not subject to validation tests, may represent occasionally a legitimate "entrance card" to the health care system, an excuse for work release certifications, or simply a reason to consult the physician. That symptoms of similar nature, such as headache and dizziness, were often associated complaints may support this assumption. The present study, however, being a retrospective one, could not address this issue properly. Perhaps, a more thorough investigation into the psychosocial aspects of the patients at that time could have improved the diagnostic accuracy. One cannot ignore, however, the time restriction imposed on the everyday family practice encounter. Furthermore, since most cases were episodic and self-limited, it is unlikely that a more precise diagnosis would have altered the outcome.

Environmental factors may play an important role in self-perceived asthenia, as suggested by the apparent clustering of cases during the summer months. Besides the normal discomfort experienced in the region during the hot summer, this period is also an off-work season for the farmers. One may postulate that only then do patients permit themselves to be aware of bodily sensations and seek health care.

A comparison of these results with those of previous studies by Jerrett,<sup>3</sup> Morrison,<sup>4</sup> and Sugarman and Berg<sup>5</sup> is

not readily applicable because of different inclusion criteria. Nevertheless, several similarities are noted: First, asthenic symptoms were twice as prevalent in women in all studies. Second, peak prevalence in the young adult group is a consistent finding. Third, a biomedical diagnosis was reached in no more than 50% of the cases. Fourth, a diagnosis, whether biomedical or psychosocial, was not established in a substantial number of patients.

Because the present investigation was carried out in a well-characterized sociocultural community that is ethnically and culturally different from those investigated by previous researchers,<sup>3-5</sup> these findings may implicate some universal features of asthenic symptoms in family practice setting.

The data suggest that patients with asthenic symptoms can be subclassified into three categories according to the recurrence and the chronicity patterns of their complaints. The largest category, episodic asthenia, includes patients who have experienced the symptoms once or twice over the 10-year study period. Because occasional fatigue is probably experienced by almost anyone—yet only a selected group of patients request medical attention—it is reasonable to assume that the figures presented underestimate the true prevalence of episodic asthenia in the community. Why some patients seek health care for episodic asthenia while others do not remains to be defined. A possible explanation may lie in the psychosocial mechanisms that determine one's decision to accept the role of sick and the status of patienthood.<sup>13</sup>

The second category, identified in this study, is of patients who have experienced the symptoms several times during the study period. These asthenic-prone patients were not defined in previous studies but constitute a significant percentage of the cases in the present one. It was possible to demonstrate a few characteristics of these patients, such as homogeneous distribution among all age groups, higher female to male ratio, and tendency to frequent attendance at the clinic. Further prospective studies are needed to elucidate the nature of recurrent episodic asthenia in family practice, however.

Finally, a small group of patients presented with chronic asthenic symptoms. These symptoms are better defined as chronic persistent asthenia rather than chronic fatigue, since the latter term has semantic association with the chronic fatigue syndrome—an entity that was not diagnosed in any of these patients. Patients complaining of chronic fatigue were investigated extensively in previous studies,<sup>2,6,7,14</sup> and mental impairment was identified in many of them. It should be noted, however, that in the small series of this study, more than 50% had had a previously diagnosed major illness that could have explained the symptoms.

Standard textbooks of medicine<sup>15</sup> discuss asthenic symptoms from a biomedical viewpoint only, listing nu-



merous organic causes that should be searched and corrected. This approach, however, does not seem to apply to the epidemiology of family practice as demonstrated by this study and others.<sup>3-6,8</sup> In this particular setting asthenic complaints often represent a heterogeneous clinical entity with its unique epidemiologic features.

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## Commentary

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Reports addressing chronic fatigue have appeared in the literature for more than 50 years. Recently, papers on this subject have been appearing with increasing frequency, perhaps because of attention in the lay press to such problems as the chronic Epstein-Barr virus syndrome. Most published studies addressing fatigue as a symptom in primary care practice have agreed on the following conclusions<sup>1,2</sup>:

- Women complain of fatigue to their physicians almost twice as often as men.
- Patients who complain of fatigue see their physicians more frequently than average patients.
- A definitive diagnosis cannot be established in over 50% of patients with this complaint.
- Extensive laboratory and x-ray evaluation of patients with fatigue has a low diagnostic yield.
- A majority of patients with recurrent or chronic fatigue have complicating psychosocial histories and an increased likelihood of having psychiatric illnesses, especially depression.

In this issue of the Journal, Shahar and Lederer report

the results of a chart review of 508 adult patients who were seen over a 10-year period in a rural practice in Israel. One hundred sixty-four of these patients presented with asthenic symptoms including fatigue, tiredness, lassitude, lack of energy, and generalized weakness. The results are consistent with previously published literature. This study suffers from the familiar disadvantages of a retrospective chart review. Patients were identified as having asthenic symptoms only if the symptoms were reported in the record by the physician. Symptoms were considered to be recurrent or persistent only if their presence continued to be documented in the record at subsequent visits. Symptoms were considered to have resolved if there was no notation of their presence on follow-up visits. Each of these weaknesses introduces potential distortion to the results.

In spite of these weaknesses, this study has made two important contributions to the understanding of the fatigued patient. First, the authors have defined three categories of asthenic symptoms based on chronicity and recurrence pattern. Because fatigue may represent a diagnostic clue to a wide range of disorders including both



self-limited illnesses (viral infections, situational life stress) and life-threatening problems (occult malignancy), the identification of three groups of asthenic symptoms may offer a useful guide for future research to define subsets of patients for whom a more detailed diagnostic workup may be indicated. In fact, this study uncovered differences between patients with episodic and recurrent episodic asthenia that may be important.

The second contribution from this paper, however, is the more important. Previous reports describing patients with chronic fatigue have ranged from biomedically focused descriptions of laboratory results to studies that have more carefully addressed family and psychosocial variables. Shahar and Lederer have addressed an even broader range of biopsychosocial issues, including ethnic, cultural, and social factors, that may affect patients with asthenic complaints. Comparing this study with previous reports from the United Kingdom and the United States reveals that some characteristics of patients with fatigue (female predominance and tendency for persistent symptoms) may be independent of culture. This study reports twice as many visits for asthenic symptoms during the summer compared with winter months. This finding has not been noted in previous reports examining patients with fatigue. Shahar and Lederer astutely note the extremes of weather and the seasonal nature of employment in this rural Israeli community as possible explanations and suggest a hypothesis that this seasonal variation may be related to employment, since summer is the off-season for these workers.

The relationship between employment, health, and illness behavior is of great importance to the practicing

primary care physician and has not been well studied.<sup>3</sup> Does this phenomenon apply to unemployed or underemployed patients in general? Is there a seasonal pattern to the frequency of chronic fatigue in other communities and cultures? Is the increased frequency of asthenia during the off-season related to boredom or a function of decreasing income? The answer to these questions await further studies addressing fatigue in the broadest possible biopsychosocial context. Studies addressing fatigue have come a long way from earlier papers, which focused solely on biomedical causes. Each time the scope of investigation has broadened, our understanding of patients' symptoms has improved. We have moved from "could the patient be anemic?" to "could the patient be depressed?" to "what are the family, occupational, and cultural factors that could be related to these symptoms?" Each of these dimensions is necessary, and none alone is sufficient to understand the fatigued patient.

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