Complementary and Alternative Medicine in Patients Attending a Rheumatology Department for the First Time. Analysis of 800 Patients

Everardo Álvarez-Hernández, Julio César Casasola-Vargas, Leticia Lino-Pérez, Rubén Burgos-Vargas, and Janitzia Vázquez-Mellado

Objectives: To determine the frequency of the use of complementary and alternative medicine (CAM) in patients attending a rheumatology department in a general hospital for the first time.

Subjects and methods: We included consecutive patients attending our rheumatology department for the first time. All the patients completed a self-administered questionnaire containing items on demographic data, and prior diagnosis. The patients were also given a list of 22 different CAM and marked those they had previously used.

Results: Eight hundred patients were studied. Eighty percent were women. The mean age was 44.8 ± 14.9 years and the mean number of years of education was 7.4. The main diagnoses were osteoarthritis (29.4%), rheumatoid arthritis (22.3%), and fibromyalgia (6.5%). Seventy-one percent had previously used CAM, with a median of 2 (0-14) different types. The most common were vitamin supplements (38%), arnica (18%), Aloe vera (15%), and homeopathy (15%). No significant differences were found in sex, age, educational level, or diagnosis. The use of CAM was more frequent in patients with longer disease duration.

Conclusions: The frequency of use of CAM is high in patient with rheumatologic manifestations.

Key words: Complementary therapies. Alternative therapies. Complementary medicine.

Frecuencia de uso de medicinas complementarias y alternativas en sujetos que acuden por primera vez al servicio de reumatología. Análisis de 800 casos

Objetivos: Determinar la frecuencia del uso de terapias complementarias y alternativas (TCA) en pacientes que acuden por primera vez a un servicio de reumatología.

Sujetos y métodos: Se incluyeron consecutivamente a pacientes que acudieron por primera vez a una consulta de reumatología. Todos los pacientes llenaron un cuestionario autoadministrado en el cual se recababan datos demográficos, y el diagnóstico previo. Los pacientes también fueron dadas una lista de 22 diferentes TCA y marcaron las que habían utilizado.

Resultados: Se estudiaron 800 pacientes. El 80% eran mujeres, con edad de 44.78 ± 14.9 años y escolaridad de 7.12 ± 3.97 años. Los principales diagnósticos fueron osteoartritis (29.4%), artritis reumatoide (22.3%) y fibromialgia (6.5%). Se encontró que el 71.1% habían utilizado TCA, con una mediana de 2 (0-14) diferentes tipos. Las más comunes fueron vitaminos (38%), arnica (18%), Aloe vera (15%) y homeopatía (15%). No se encontraron diferencias significativas en relación con el sexo, la edad, la escolaridad ni el diagnóstico. El uso de TCA fue más frecuente en pacientes con mayor tiempo de evolución de la enfermedad.

Conclusiones: La prevalencia de uso de TCA es alta en pacientes con manifestaciones reumatológicas.

Palabras clave: Tratamientos complementarios. Tratamientos alternativos. Medicina alternativa.

Introduction

Most rheumatic illnesses are chronic and frequently cause important limitation and alterations in the quality
of life of the patients that suffer them. In many cases, conventional treatment does not offer a satisfactory efficacy, has important side effects and not always alleviates the discomfort in this type of patients, who seek other treatment alternatives based on certain values and beliefs to take control over the illness and/or to increase vitality, or to simple feel better, especially when pain is present. The increase in the frequency of use of alternative and complementary treatments (ACT) reflects modern medicines’ limitations. ACTs are defined as questionable treatments, unproven, doubtful, unorthodox or unconventional, that are not a part of the medical armory and whose efficacy and security has not been proven following the scientific method universally accepted. Until today there have been more than 130 modalities described of unconventional treatment and more than 500 remedies for the treatment of different illnesses. Many ACTs do not have a rational explanation, and even though patients tend to conceptualize them as “natural” and safe therapies, many of them are of doubtful use and not recommendable, with the risk of side effects. The use of ACTs in patients with rheumatic disease is very frequent and universal. The frequency of use in the general population is of 6 to 73% and is higher in patients with chronic disease. The reported frequency of use of ACTs in patients with rheumatic disease is variable due to diverse study designs and the definition of ACT employed. The expenditure on ACTs by the general population is of 18%, homeopathy (15%), and sabila (15%) with side effects, show acting drugs and chronic usage). Among the patients that have a longer evolution time. The factors identified in the use of ACTs are related to the patients characteristics (denial of infirmity, sociocultural factors, family, and psychologic aspects), of the illness (unknown origin, presence of pain), of the physicians (denial and disinformation about the use of ACT, had relationship with the patient) and of the available resources (drugs with side effects, show acting drugs and chronic usage). The objective of the present study is to determine the frequency of use of ACTs in patients that assist for the first time to an outpatient rheumatology clinic.

Subjects and Methods

A transversal study in which 1000 consecutive patients of the Rheumatology Department outpatient clinic of the Hospital General de México were invited to participate, were visited during a 6 month period. They were questioned about their use of ACT before their first visit to the department. The questionnaire was applied while the patient waited to be seen by the rheumatologist. In the questionnaire 22 different ACT were related and the patient selected those which he or she had taken, and an open question was left for the patient to mention if another ACT, not mentioned previously, had been used. The rheumatologist that attended the patient for the first time wrote down the tentative diagnosis, the time since onset and demographic variables such as gender, age, scholality and urban or rural precedence (Annex 1).

Data Analysis

Means and Standard deviations in variables with a normal distribution were used; median and intervals in variables with a non parametric distribution were employed. For comparisons, Student’s \( t \) and \( \chi^2 \) were used. A multivariate analysis with logistical regression to identify variables associated to ACT was employed.

Results

Only 800 patients completed correctly the questionnaire. The other 200 were not considered for the final analysis due to incomplete data. 80 patients were studied, of whom 642 were women (80%), with a mean age of 44.78 (14.9) years, schooling of 7.12 (3.97) years. 82% lived in an urban area and 18% in a rural one (Table 1). The main diagnosis was osteoarthritis (OA) in 29.4%, rheumatoid arthritis (RA) in 22.3% and fibromyalgia (FM) in 6.5%. In a 13% of the patients diagnosed did not have any diagnosis was established and 4.4% of the patients did not have any rheumatic disease (Table 2). Time since onset had a median of 27 months (0.3-360 months). 71.1% (569) ACT, with a median of 2 (0-14) different types. The most common were vitamin supplements (38%), Arnica chamissonis (18%), homeopathy (15%), and sabila (15%) (Table 3). In the global analysis there were no differences in relation to gender, age, the scholality and the diagnosis. Regarding the onset of symptoms, it was found that the use of ACT was higher among those with more than 5 years (60 months) since onset compared to those with less than 5 years since onset (68.4% vs 31.6%; \( P<0.014 \)). In the multivariate analysis there was no significant association (Table 4). When the subanalysis was done for each of the alternative therapies, it was found that male patients were more often users of gingseng (7% vs 2%; \( P<0.001 \)), Rattlesnake (8.9% vs 3%; \( P<0.001 \)), witch doctors (12.7% vs 5.3%; \( P<0.001 \)), vaccines as immunomodulators (19% vs 12.6%; \( P<0.04 \)) and chiropractors (12% vs 6.9%; \( P<0.03 \), in the rest of the ACTs, no significant differences were found regarding gender. Patients with more than 9 years of schooling more frequently used homeopathy (19.1% vs 13.2%; \( P=0.048 \)), acupuncture (17.4% vs 11.6%
P<0.04). GelatinMR (food supplement with 18 essential amino acids) 48.6, noni juice (Morinda citrifolia) 34.4, Rattlesnake (Crotalus basiliscus) 33.4, gingseng (Panax quinquefolium) 24.3, urine therapy 18.2, alphabiotic therapy 14.2, Reiki 11.1, and gingseng (6.7% vs 1.9%; P=0.001), while patients with a schooling ≤9 años showed a significant difference regarding bee stings (7.6% vs 3.4%; P=0.048), witch doctors (7.7% vs 3.4%; P=0.042) and GelatinMR (6.9% vs 2.8%; P=0.042). Regarding the use of different ACT in relation to diagnosis, we found that the use of urine therapy (3.8% vs 0.3%; P=0.008) and topical marijuana (10.9% vs 5.3%; P=0.025) were most frequent in patients with systemic inflammatory diseases (RA, ankylosing spondylitis [AS], gout, systemic lupus erythematosus [SLE], etc) in comparison with other illnesses (OA, extraarticular...
rheumatoid arthritis (RA), FM) without other significant differences. With regard to age we found that persons over 50 used acupuncture (20.5% vs 8%; P = .00), shark cartilage (13.7% vs 8%; P = .045), copper bracelets (11.6% vs 3.8%; P = .000), bee stings (11.2% vs 3.0%; P = .001), arnica (24.1% vs 3.0%; P = .009), and rattlesnake (5.2% vs 1.4%; P = .013) more frequently, without other significant differences.

Discussion

The use of ACT is every day more frequent and generalized all around the World, and prevalence is greater in patients with chronic disease, such as rheumatic disease. It is estimated that the approximate relationship between ACT and conventional treatment is 1:1. In the United States the reported frequency of use of ACT in patients with rheumatic manifestations is 84%. In our study, only first time patients were included and the frequency of ACT use is within the range reported previously. Most patients that come to our department are women and persons or urban origin, with a wide age, schooling and time since onset of disease spectrum. The difference from previously done studies in our country is that const generated by ACT was not analyzed nor was compliance with formal treatment, due to the Fact that the questionnaire was only applied to first time users and not to subsequent ones (Table 5).

In several other studies there has been a reported increase in the frequency of use of ACT among patients with a higher schooling and socioeconomic level, and among patients with higher degrees of limitation and more time since onset of disease. Inconsistently it has also been shown that there is a higher use among women and younger patients. Only 1 study done in Mexico communicated a higher frequency of ACT use among patients with a lower schooling level. 47% to 61% have initiated ACT before their first evaluation by a rheumatologist and less than 30% communicated the use of these therapies to their doctor. The reported frequency of conventional treatment suspension to use ACT oscillates from 14% to 40% and in a study Ramus Remus et al in 57% of cases it was the “therapist” that recommended the suspension of formal therapy. In spite of having a large enough sample, this study did not find significant differences regarding age, gender, or schooling as has been communicated by other authors. We only found a statistically significant difference in the time since onset of disease and the use of ACT, which is logical because the more time the disease lasts, the more the patient looks for new alternatives to alleviate the discomfort.

TABLE 4. Variables Associated to the Use of Complementary and Alternative Therapies (ACT)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Bivariate Analysis</th>
<th>Multivariate Analysis†</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (&gt;50 years)</td>
<td>0.173‡</td>
<td>1.0</td>
<td>0.8 (0.6-1.1)</td>
</tr>
<tr>
<td>Gender (female)</td>
<td>0.606§</td>
<td>1.0</td>
<td>1.1 (0.8-1.6)</td>
</tr>
<tr>
<td>Scholarity (≤9 years)</td>
<td>0.114‡</td>
<td>1.0</td>
<td>0.9 (0.6-1.2)</td>
</tr>
<tr>
<td>Origin (urban)</td>
<td>0.089§</td>
<td>1.0</td>
<td>0.7 (0.5-1.2)</td>
</tr>
<tr>
<td>Time since onset (≥5 years)</td>
<td>0.294†</td>
<td>1.0</td>
<td>1.1 (1.0-1.2)</td>
</tr>
<tr>
<td>Diagnosis (EIS)</td>
<td>0.285†</td>
<td>1.0</td>
<td>1.4 (0.9-2.0)</td>
</tr>
</tbody>
</table>

*IC indicates confidence interval; OR, odds ratio calculated in a 2 × 2 table in relation to the value that is found in parentheses in each variable.
†Logistic regression.
‡Student’s t test.
§χ² or Mann Whitney’s U tests.
EIS: systemic inflammatory disease.
and experiments with the options at his or her disposal. When doing a separate analysis of each of the ACT included in this study, we found differences that can represent specific group preferences because it was observed that certain ACTs had a larger frequency of use depending on the age, the gender, schooling, and diagnosis, and these preferences are very probable linked to the patients’ idiosyncratic characteristics, the family nucleus, ethnic, social and even merchandising aspects generated by certain products. These types of specific preferences have been scarcely explored in other previous studies. When the patients’ preferences are knows the clinician has a better opportunity to provide orientation. In our study 22 of the most frequent ACTs used in our population were selected. In some studies vitamin and calcium supplements have been excluded. In our case they were included in those cases in which they were self-medicated and used with the objective of improving osteoarticular manifestations and not as a dietary supplement, constituting the most frequently used ACT by this group of patients. It is not easy to define the reasons for which the patients use ACTs, because the factors involved are complex and not very well understood. Among these factors we found: a) the fact that among the general population there is still the common magical-animist conception of disease and because conventional medicine does not contemplate supernatural origins, patients search for ACTs to equilibrate or purify his body and recover health lost by enchantment or “evil eye”2,20,21; b) some patients consider that conventional treatment debilitates the body and impedes their self-healing capacity, while ACTs correct and support their whole organism2; c) patients with chronic disease frequently have interest in participating directly in their treatment asking for advice about diet or activities that must be carried out and are attracted by ACTs that are based not only on a maneuver, but on a model that looks to explain the complexity of health and disease, and that proposes changes in lifestyle (acupuncture, naturism)22, and d) the fragmentation and technification of modern medicine that depersonalizes the doctor-patient relationship and due to the nature of chronic illnesses, patients do not find the desired satisfaction and tend to search for hope offered by ACTs. In spite of that the majority of patients consider ACTs as innocuous, there are multiple reports of adverse episodes caused by the use of these therapies, due to lack of experience by the person applying them or as a result of unknown pharmacologic effects or interactions.22-28

Conclusion
The frequency of use of ACT is high in patients with rheumatic manifestations independent of gender, age or schooling, and the only significant differences found are in specific preferences without affecting the prevalence of general use.

References
Annex 1. Questionnaire on the Use of Alternative Therapies and Glucocorticoids in Patients Visiting a Rheumatology Department for the First Time

To Be Filled by the Patient

| a) If you have ever employed one of the following drugs underline it: |
|---------------------------------|------------|------------|
| Adrecort | Delta-diona | Indodex | Rumoquin NF |
| Alin or Alin Depot | Depomedrol | Kenacort | Rumoxil NF |
| Atrtil | Dexabidin | Lergosin | Solumedrol |
| Becliv | Dexal | Metronasona F | Taprodex |
| Brolin | Dexametasan | Metax | Tedal |
| Mofliprednisolona | Dexatan | Metilcorten | Triamcort |
| Calcort | Dexazolidin | Moxona | Vengesic |
| Celestamene F | Decicar | Migredexam | Yaladal |
| Celestone | Dewmet | Neuralin | Zolidine |
| Cordex | Dewona | Norgesicn | Prednisoma |
| Cordex M | Dextone | Novasert | Desametasana |
| Cortalol | Dibasona | Offisolona | Tamiodexal |
| Cortilex | Difensibal | Oxibit | Cronolval |
| Cryemetasona | Difar | Prednihb | Fisopred |
| Cryolisona | Dilarmine | Prednapon | Celestamine |
| Dantizon | Dipropxan | Realin | Clarient |
| Decadron | Flabicortid | Betametasona | Hidrocorisona |
| Decadronol | Guldexcan | Reusan | Melodina |
| Docerex | Indarzona | Rumoquin | Neotrol |
| Predizar | Prednilam | |

b) Who indicated or recommended the drugs?
1. General practitioner
2. Specialist (rheumatologist, orthopedic surgeon, internist, etc)
3. Pharmacy employee
4. Family or friend

c) Have you ever received or used one of the following treatments for rheumatic disease? Underline:
1. Homeopathy
2. Acupunture
3. Massage therapy
4. Chiropractic treatment
5. Botox and/or reflexology
6. Tea
7. Noni juice
8. Ure injections
9. Shark cartilage
10. Copper bracelets
11. Termal baths
12. Bee stings
13. Arnica
14. Vitamine
15. Topical marijuana
16. Aloe vera
17. Rattlesnake
18. Witch doctors
19. Ginseng
20. Alphabetic treatment
21. Vaccines
22. Gelatin

To be filled by the physician

<table>
<thead>
<tr>
<th>Age:</th>
<th>Gender:</th>
<th>Schooling:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

File: Rural Urban

Apparent diagnosis:

Time since onset of disease:

Dosage and timing of the steroideal drugs:

Adverse effects due to the use of glucocorticoids:

Do you consider that the patient needed glucocorticoid treatment
1. Yes
2. No

Do you consider the treatment adequate?
1. Yes
2. No