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# ORIGINAL ARTICLES

# Traditional medicine for lumbosacral conditions in the elderly

# La medicina tradicional en afecciones lumbosacras en el adulto mayor

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## **ABSTRACT**

**Introduction:** the methods used by Natural and Traditional Medicine are therapeutic, economical and harmless. Low back pain is a condition the elderly suffer from at certain moments throughout their lives.

**Objective:** to determine the effectiveness of traditional medicine in lumbosacral conditions in the elderly, at Pedro Borrás Astorga University Polyclinic, from September 2016 to June 2017.

**Methods:** an observational, analytical, case and control research was carried out with a target group of 562 old people who attended a traditional medicine consultation with low back pain, a simple random sample of 200 patients was chosen, who were separated into two groups, of 100 each of cases treated with traditional medicine and the control group treated with conventional medicine; theoretical methods were used, empirical review of



clinical history, Oswestry scale and Womac index, along with statistical techniques were applied (percentage and Chi-square).

**Results:** in both groups the ages between 60-64 years predominated, female sex prevailed, the occupation of housewives in women and agricultural workers in men, the development of symptoms using traditional medicine was satisfactory in 95 %, 36 % needed from 3 to 6 sessions with cups, 52 % from 7 to 10 sessions with cups, 88 % underwent treatment with acupressure and 48 % suffered from gastritis as an adverse reactions regarding the conventional treatment.

**Conclusions:** traditional medicine proved to be an effective treatment for the elderly suffering from lumbosacral conditions.

**MeHS:** MEDICINE, TRADITIONAL; AGED; LUMBOSACRAL REGION; LOW BACK PAIN; PHYTOTHERAPY; APITHERAPY; MEDICINE, CHINESE TRADITIONAL.

### **RESUMEN**

**Introducción:** los métodos empleados por la Medicina Natural y Tradicional son terapéuticos, económicos e inocuos. La lumbalgia es una afección que padecen los adultos mayores en algún momento de la vida.

**Objetivo:** determinar la efectividad de la medicina tradicional en afecciones lumbosacras en el adulto mayor, del Policlínico Universitario Pedro Borrás Astorga, en el período de septiembre de 2016 a junio de 2017.

**Métodos:** se realizó una investigación observacional, analítica, de casos y controles, con un universo de 562 adultos mayores que asistieron a consulta de medicina tradicional con dolor lumbosacro, se seleccionó una muestra aleatoria simple de 200 pacientes, separados en dos grupos, de 100 cada uno, el de casos que recibió tratamiento con medicina tradicional y el grupo de controles tratado con medicina convencional; se utilizaron métodos teóricos, empíricos la revisión de la historia clínica, la escala de *Oswestry* e índice *Womac*, se aplicaron técnicas estadísticas (porciento y Chi cuadrado).

**Resultados:** predominaron en ambos grupos las edades entre 60-64 años, el sexo femenino, la ocupación de ama de casa en las féminas y trabajador agrícola en los hombres, la evolución de los síntomas utilizando la medicina tradicional resultó satisfactoria en un 95 %, el 36 % utilizó de 3 a 6 sesiones con ventosas, el 52 % de 7 a 10 sesiones con ventosas, el 88 % recibió tratamiento con digitopuntura y un 48 % presentó gastritis como reacción adversa ante el tratamiento convencional.

**Conclusiones:** la medicina tradicional resultó ser un tratamiento efectivo para los adultos mayores aquejados de afecciones lumbosacras.

**DeCS:** MEDICINA TRADICIONAL; ANCIANO; REGIÓN LUMBOSACRA; DOLOR DE LA REGIÓN LUMBAR; FITOTERAPIA; APITERAPIA; MEDICINA CHINA TRADICIONAL.

# INTRODUCTION

In ancient times it was thought that diseases were caused by the discontent of gods or by evil spirits, until almost 2,500 years ago, Chinese, Indian and Greek civilizations replaced the belief in the supernatural with that in which health was the result of a balance of natural forces in the body, and that disease was the evidence of its loss. Then, although the Chinese and Indian medical systems have remained intact, based on the previous foundation, in the West such an idea was displaced by the advance of scientific medicine. <sup>(1)</sup>



Natural and Traditional Medicine (NTM), conceived as a unique heritage of the Eastern Hemisphere, over time its use has expanded to other regions of the planet, where it has reached great significance.

The MNT includes 10 modalities: phytotherapy, apitherapy, traditional Chinese medicine and all its variants, homeopathy, floral therapy, medical hydrology, traditional exercises: taiji, tiangong, ozone therapy, helium thalassotherapy and nutritional orientation, in such a way that the methods and procedures included in its use make its actions on man rich and that, with the passage of time, occupy an important place in the therapeutics of the patient. <sup>(2,3)</sup>

Within this framework, at the end of the International Conference on Primary Health Care, held in 1978, the World Health Organization (WHO) issued its well-known Declaration of Alma-Ata, which, among other proposals, called for the incorporation of alternative medicines and traditional therapies, with proven scientific efficacy to national health systems.<sup>(1)</sup>

Among the trends of the MNT, its growing incorporation into professional practice stands out, not as an alternative method motivated by economic causes or as a way to solve problems of shortage, but as a true scientific discipline that it is necessary to study, improve and permanently develop its skills due to its proven ethical and scientific advantages. (3)

During the last decades, the MNT has been incorporated in a progressive way to the procedures of Cuban medicine, justified for being economic and innocuous therapeutic methods, that when they are used in a correct way can become effective, besides being of easy application in those affections where the pain is the fundamental symptom and in the psychosomatic disorders that are influenced by psychosocial factors. (4,5,6)

Back pain is one of the main causes of medical consultation in the world, and the fifth in frequency of hospitalization, which makes it one of the first causes of absenteeism and limitations in the activities of daily life in active people; hence the cost generated by this condition is cause for concern worldwide. In this regard, it was found that 80% of the world's population has suffered back pain at some point in their lives. (6,7,8)

Low back pain improves with rest, but recurrence occurs relatively easily from much milder exertion than in the first episode. This global health problem generates different degrees of disability, which affect the individual and his or her environment. Chronic pain particularly affects active people and often does not improve with conventional therapies. Musculoskeletal diseases are the main cause of morbidity and disability among adults between 18 and 64 years of age in developed countries, of which acute low back pain is one of the most treated and generates a great deal of medical attention, especially in outpatient consultations, as a consequence of its high morbidity.<sup>(9)</sup>

In Cuba occurs the phenomenon of population aging, many older adults, present diseases of the osteomioarticular system (OMAS) that need to improve their state of health treatment with traditional medicine, in addition these patients show a certain degree of deficiency, disability and handicap, mostly lumbosacral alterations.

Research similar to this one is scarce, according to statistical data in the health area of the Pedro Borrás Astorga University Polyclinic, it reflects an aging index higher than 30% of the total population, of which 40% suffer from lumbosacral diseases and in the traditional medicine department of the rehabilitation room it reflects a value of 55% of elderly patients attending for lumbosacral pain. (10)



In view of the above, the objective of this study is to determine the effectiveness of traditional medicine in lumbosacral conditions in older adults at the Pedro Borrás Astorga University Polyclinic, between September 2016 and June 2017.

#### **METHODS**

An observational, analytical, case-control study was conducted in the health area of the Pedro Borrás Astorga University Polyclinic between September 2016 and June 2017.

A sample of 200 patients with this condition was randomly selected, divided into two groups of 100 patients each, one (of cases) and a second group (of controls). Criteria were considered:

Inclusion criteria: older adult, who attended the polyclinic rehabilitation room during the study period, with a diagnosis of low back pain.

Exclusion criteria: older adults who are cachectic or deteriorated, cardiopaths and decompensated respiratory diseases, with diabetes mellitus, malignant tumour conditions and associated dermatological diseases, who have abandoned treatment.

The group of cases was treated with MNT, using moxibustion, acupressure, suction cup, pharmacopuncture techniques, as well as B vitamins, according to the physician's criteria for the symptoms and underlying disease they presented. The patients received sessions of three to six and seven to 10, according to the characteristics of each patient and symptomatic evolution, the variables were used for 20 minutes per session, and the points were stimulated: V23, V25, V40, V57, V60, Vb30, Vb34, and Vb39. A second group (controls) received conventional treatment with anti-inflammatory drugs, analgesics and muscle relaxants, as prescribed by the doctor.

A bibliographic review of materials and sources on the different aspects treated in the research was carried out, documentary analysis of the clinical histories, in addition to other tools such as the WOMAC index for the determination of pain, degree of capacity, and rigidity; OSWESTRY scale for visual analogous evaluation, scale that also incorporates the disability index component of OSWESTRY. Used at baseline, during the fifth and seventh day with medication or fifth and sixth with traditional therapy and at the end of treatment, in addition to scales used to increase sensitivity and optimize results.

It was considered a satisfactory evolution when there was total relief of pain or slight discomfort persisted, which did not prevent the patient from returning to normal activities, and unsatisfactory when patients continued with pain after treatment, which did not allow them to return to normal activities. For both groups, the period of six to 10 days or treatment sessions was taken into account.

The data were processed through statistical methods with absolute frequencies and relative percentages, Chi-square to look for statistical significance.

Bioethical principles were considered together with informed consent, individualized treatment and confidentiality in the use of the data was guaranteed.



## **RESULTS**

Predominance was observed in the older female adult case group (58 %) and the 60-64 age group (30 %). The control group was also dominated by females (56%) and the 60-64 age group (32%) (Table 1)

**Table 1.** - Distribution of the elderly according to age and gender at Pedro Borrás Astorga University Polyclinic. September 2016 - June 2017.

	Gender							
Ages (years)	Group of cases				Control Groups			
	Female		Male		Female		Male	
	No.	%	No.	%	No.	%	No.	%
60-64	30	30.0	25	25.0	32	32.0	23	23.0
65-70	15	15.0	11	11.0	13	13.0	11	11.0
75-79	10	10.0	4	4.0	8	8.0	7	7.0
80 and older	3	3.0	2	2.0	5	5.0	3	3.0
Total	58	58.0	42	42.0	56	56.0	44	44.0

Another result was related to occupation, where in both groups housewives prevailed in the female sex with 47 %, followed by kitchen assistant 19 % and in the male sex the agricultural worker for 36 %.

The evolution of the patients according to the treatment used contributed that in 95% treated with traditional medicine and 71% treated with conventional treatment, it was satisfactory, not so in 29% of the patients who received conventional treatment, with an unsatisfactory evolution (Table 2).

**Table 2**. Evolution of the elderly with lumbosacral disorders, depending on the treatment used.

	Traditiona	al treatment	Conventional Treatment		
Evolution	No.	%	No.	%	
Satisfactory	95	95.0	71	71.0	
Non-satisfactory	5	5.0	29	29.0	
Total	100	100	100	100	

 $X^2 = 20.41$  (p<0.001) Source: Clinical History



Older adults with lumbosacral conditions were distributed according to traditional medicine treatment modality and number of sessions received. It was observed that 88% used acupressure as a traditional treatment modality, 36% of three to six treatment sessions and 52% used seven to 10 sessions (Table 3).

**Table 3**. Distribution of the elderly with lumbosacral conditions according to traditional medicine treatment modality and number of sessions received.

	Sessions of treatment					
Modality of treatment	3	to 6	7 to 10			
	No.	%	No.	%		
Moxibustion	17	17	28	28		
Digitopuncture	36	36	52	52		
Cupping glass	18	18	35	35		
Pharmacopuncture	8	8	4	4		

In the types of traditional medicine treatment used in elderly patients with lumbosacral conditions, 88% were treated with acupressure and 53% with suction cups (Table 4).

**Table 4**. Distribution of older adults in the group of cases that used MNT techniques for their treatment

Technique of the Traditional Medicine	No.	%
Cupping glass	53	53
Digitopuncture	88	88
Pharmacopuncture	12	12
Moxibustion	45	45

Source: Clinical History N=100

Regarding the adverse effects according to the treatment used, it was observed that 48 % of older adults treated with conventional medicine presented gastritis and 3 % who received traditional treatment presented dizziness and/or vagal reaction.



#### **DISCUSSION**

Old people between 60 and 64 years of age make greater use of social and health services, which results in higher expenditures, which presupposes a greater number of resources, better planning and utilization of existing ones as the population ages.

In Latin America, ageing is accelerating, contributing to the development of chronic non-communicable diseases. It is estimated that Cuba will be the oldest nation in Latin America by 2025; it is estimated that by 2020 one out of every four Cubans will exceed six decades of life, at present it has 15.8% of people 60 years of age and over in its total population, which denotes an increase in life expectancy, population aging and a relative increase in the diseases associated with this stage of life. (11,12,13)

Similarly, more women than men are received in all Primary Health Care consultations, attributed to their greater care of health-related aspects and gender biases of the Cuban population. Other authors (14,15) report that acute lumbago syndrome is more frequent in women than in men.

Sabogal et al. <sup>(15)</sup> state that spinal osteoarthritis is described as the first cause of low back pain that usually appears in the 1950s and increases rapidly with age; it is more frequent in women, <sup>(11,16)</sup> which coincides with the research. In the study carried out by Valdés Gómez et al. <sup>(12)</sup> the female sex predominated and the age of 65-69 years was similar to the study in question.

The occupations or activities that the patients carried out throughout their lifetime or those that carried out at the time of the study were recognized. It was observed that there is a high attendance of patients to consultation with occupations that demand physical effort, in women prevailed the housewives (with all the works that this generates) and kitchen assistant; in men agricultural workers and drivers, this occupation called interest for their "sedentary" activity; they should not suffer this pain, but it is understood by the position frequently adopted.

In a revised article, <sup>(9)</sup> according to the occupation of the elderly, it shows a predominance of retirees, followed by housewives; these results coincide in part with the research carried out. Other authors <sup>(11)</sup> point out that this condition is more frequent in men, who are exposed to greater physical load and occupational risk. This can be attributed to the different occupations carried out by men, for example: heavy loads, as well as push and traction of these, which cause great tension in the paravertebral musculature and increase the frequency of relapses of the painful manifestations, with the consequent increase of degenerative disc changes.

All this contributes to the fact that the lumbar pain crisis is a complex problem for the attending physician, who must face it with a broad and integral vision, incursion into different therapies in order to increase the independence of patients in the activities of daily life, eradicate or diminish the need for medication, as well as improving their disposition and capacity for work.

The evolution of treatment with traditional medicine was satisfactory. These results reflect that there is a statistical relationship between complaint vs. therapeutic effectiveness, which is significant, and confirms that this treatment is effective for the relief of low back pain. It is usual that the number of sessions needed to achieve the relief of low back pain ranges from 7 to 10, and responds to the occupation performed by these patients and the site of the pain, which led them to perform this number of sessions to improve the health problem.



In revised appointments <sup>(2,8)</sup> it was observed that most of the patients treated with traditional medicine reduce their symptoms between 8 and 12 days of treatment and reached a good evolution and controlled their symptoms. In the investigation carried out, most patients carried out up to 10 treatment sessions, mainly with acupressure and cupping glass.

In this research, several therapies were carried out, depending on the characteristics of each patient, the intensity of the pain and the assistance to receive the treatment; the contraindications required by some techniques were also evaluated. MNT treatments rarely use a single therapeutic modality or resource, due to the interest in enhancing the patient's healing possibilities, the search for synergistic effects and the low presentation of drug interactions.

Studies carried out in older adults <sup>(9)</sup> have made greater use of traditional moxibustion and acupressure therapy; these results do not coincide with those of this research, since the use of acupressure and cupping glass predominated.

Most of the pharmacological prescriptions are made to the elderly, due to the risk factors and concomitant chronic illnesses they suffer from, many drugs taken in high doses or over long periods, cause insomnia, anxiety, weakness, impaired memory and ability to react, and self-destructive attitudes. However, alternative medicines do not cause dependence, and when interacting with other medicines they do not react to the detriment of the body. (14) This is another benefit of traditional medicine that makes it acceptable.

Gastric intolerance, in a general sense, is the most frequent undesired effect during the consumption of medications, due to the aggression they exert on the mucosa of the stomach and its side effects, (13) which coincides with the study carried out.

MNT turned out to be an effective and economic treatment for older adults suffering from lumbosacral conditions, mainly treated with cupping glass that improved their condition after having received between 7 and 10 treatment sessions.

#### **Conflict of Interest**

The authors state that there is no conflict of interest.

# **Authors' contribution**

The authors contributed equally to the design of the study.

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