76 - MEASUREMENT OF THE ARCH OF MOVEMENT OF THE CERVICAL AND LUMBAR COLUMN IN WOMEN WITH SYNDROME OF FIBROMIALGY

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INTRODUCTION

WOLFE & cols. (1990), they affirm that in the fibromialgy happens located muscle spasm and it can happen in association with inflammatory arthritis and syndromes cervical or lumbar.

CONTURSI (1998), suggests that good dynamic corporal posture and static is necessary for accomplishment of daily tasks, to avoid lesions and to save energy, what guarantees more disposition and it delays the fatigue.

GOWANS & COLS. (1999), they affirmed that the short term physical exercise and the education programs can produce immediate benefits and sustained for patients with fibromialgy.

According to ACHOUR Jr. (2002), the deformation of the muscle provoked by the prolongation doesn't happen only in the contractile components, but in every structure musclefascial. Still second this author, the muscular weakness take the decrease of the movement width to articulate, in that way being the muscles of the retracted cervical, thoracic and lumbar column, it predisposes the alteration postural, could cause mechanical deviations of the axis of the spine as the cifoescolioses. Already the shorten muscle of the muscles isquio-tibial, carts in pelvic inclination, could also make a knee flexão or even hiperextention, altering the center gravitacional, that moved it will compensate in another way; where, besides bad posture, it will happen increase in the energy expense, provoking fatigue, discomfort, uncomfortable and increase of the pain.

CERQUEIRA-MILK (2002) it defends that the fibromialgy has as characteristic the presence of painful points in the body, without any clinical discovery that justifies them; in that way the diagnosis of the fibromialgy is based in the personal interpretations of the patient's clinical manifestations that it favors to the isolated treatment, characterized by the segmented service. This fragmented approach seems to favor to the prolongation and aggravation of the symptoms as, pain, muscular tension, irritation and fatigue, that you/they are factors directly linked to the life quality.

METHODS

The present study developed at the Clinic of Applied Physiotherapy Traumatologia - Orthopedics and Reumatologia - CEPAF - SESI; of the Area of Biological Sciences and of the Health of the Fundação Universidade of the West of Santa Catarina, located in the city of Joaçaba, State of Santa Catarina.

The chosen population to represent the universe intended in this study was composed by women that were being treated at private clinic and they demonstrated through specific subjects their physical and psychological manifestations current of the action of the fibromialgy. The sample of this research was composed by a group of women with age among nineteen (19) and fifty seven years (57) with clinical diagnosis of fibromialgy. The instrument used for the accomplishment of the study was the goniômetro for it COLE apud KRUSSEN (1986), HOPPENFELD (1987) and MARQUES (1997), it is the instrument more used to measure the angles articulate, presenting advantages of being of easy handling, to provide fast sockets of measures and to be an instrument of low cost.

COLE apud KRUSSEN (1986), affirms that the goniometria constitutes an essential step in the evaluation of the function in the patient with muscular, neurological or skeletal functional incapacity. The goniômetro used for socket of the measures is of the mark Pró Fisiomed, presenting two arms of eighteen centimeters of length and four comma five centimeters of width that it demarcates this width, with a central hole that holds and it stabilizes the arms called of fulcrum.

RESULTS

Based in the statements of it COLE apud KRUSSEN (1986), HOPPENFELD(1987), KOTTKE (1994) and MARQUES(1997), the movement (ADM) of the cervical column in flexão (65º), extensão(50º), inclination lateral(40º) and rotation (55º), they were verified in the evaluation, before the sessions and again verified after the end of the proposed work, similar of verifying possible changes in ADM. The presentation and analysis of the data now discussed, they are organized in tables, it is like this possible to observe the differences obtained in the to measure of ADM of the cervical column in flexão movements, extension and lateral inclination, in different moments here classified as before and later.

In agreement with the suitable data in the table 1, it was observed that 30% of the sample presented ADM in flexão of the cervical column between 42 and 46 cm, indicating an average of 44 cm, accusing a shorten muscle in relation to the approximate normal values considered by MARQUES(1997), of 21 cm, verifying of 32,31% of shorten muscle in flexão. Already 40% of the sample, they presented medium ADM 54,5cm, with 10,5cm of flexão loss, suggesting a percentile negative of 16,16% and other 30% remaining, they demonstrated average of 61cm, revealed loss of 4cm, concluding 6,15% of shorten muscle in this movement.

Table 1-ADM of the Cervical col. in flexão before to Treat

Table 1 -ADM of the Cervical col. in flexão before to Treat

N	ADM before	Medium ADM	ADM Normal	Dif. Retr	% da Retr.	%N
06	42-46	44	65	21	32,31	30
08	50-59	54,5	65	10,5	16,16	40
06	60-62	61	65	4	6,15	30
20						100

Table 2 -ADM of the col. Cervical in Flexão Later to Treat

N	ADM Later	Medium ADM	ADM Normal	Dif ret	% ret	%N
1	48	48	65	17	26,16	5
6	52 -59	56	65	09	13,84	30
13	60 -65	63	65	02	3,07	65
20						100

When examining the Table 2, of flexão cervical column after the suggested sessions, it was evidenced that 5% of the sampling presented average of ADM 48cm, where the difference of shorten muscle 26,16%, already, 30% of the subjects, they obtained the average of 56cm, with difference of 09cm and shorten muscle of 13,84%, however it was noticed that in 65% of the sample, the average reached 63cm, presenting loss of 02cm and 3,07% of shorten muscle.

In relation to extension of the cervical column before the treatment, it was examined according to Table 3, that 25% of the sample, it presented an average of shorten muscle of ADM 34cm, with estimate of loss of 16cm, accusing 32% of shorten muscle. However, 50% of the sampling indicated average of shorten muscle of 3,5cm with 7% of loss. Other 25%,

they showed average of 42cm, imputing 16% of decrease in ADM.

Table 3-comparison among ADM Cervical column in Extension Before Treatment

N	ADM Before	Médium ADM	ADM Normal	Dif retr cm	% retr	% N
05	30-38	34	50	16	32%	25
05	40-44	42	50	8	16%	25
10	45-48	46,5	50	3,5	7%	50
20						100

Table 4-comparison among ADM Cervical column in Extension Later Treatment

N	ADM cm Later	Medium ADM cm	ADM cm Normal	Dif Ret cm	% ret	% N
1	33	33	50	17	34	5
6	40-44	42	50	8	16	30
13	45-50	48	50	2	4	65
20						100

In relation to ADM in extension after the treatment, we observed in table 4, 5% of the sample reached the average of 33cm, with difference of 17cm that accused 34% of shorten muscle when comparing with the normal index; equally 30% reached the average of 42cm, where the difference reached 8cm and 16% of shorten muscle; however 65% of those examined exposed the average of 48cm, with 2cm of difference and 4,0% of shorten muscle; as it is observed in the table 14.

It was observed that in the inclination to the right, that 30% of the sample had an average of 26cm, the difference of ADM in 14cm, characterizing 35% of shorten muscle in this movement. Other 30%, they presented average of 32,5cm, being to 7,5cm of normal ADM, with 18,75% of shorten muscle. However the average of the others 40% of the sample were in 38cm, with difference of 2cm and percentile of shorten muscle in 5%, values demonstrated in the table 5.

After accomplishing the sessions of suggested physiotherapy, it was observed that ADM of right lateral inclination had average of 34,5cm, in 35% of the subjects, where the difference was of 5,5cm and the percentile of shorten muscle of 13,75%. In the others 65% of the sampling, the average was of 38cm, tends only 2cm of difference in relation to the normal angle suggested for it COLE apud KRUSSEN (1986), HOPPENFELD(1987), KOTTKE (1994) and MARQUES(1997), where the shorten muscle reached the index of 5%.

Table 5-comparison among ADM of the Cervical column in right Inclination before the treatment

N	ADM Before	Medium ADM	ADM Normal	Dif Retr cm	% retr	%N
6	23 – 29	26	40	14	35	30
6	30 – 35	32,5	40	7,5	18,75	30
8	36 – 40	38	40	2	5	40
20						100

Table 6-comparison among ADM of the column Cervical in right Inclination after the treatment

N	ADM Later	Medium ADM	ADM Normal	Dif Retr cm	% retr	%N
7	33-35	34,5	40	5,5	13,75	35
13	36-40	38	40	2	5	65
20						100

Confronting the results demonstrated through the Tables 5 and 6, which refer the cervical inclination before the right and after the treatment, respectively, it was noticed that there was increase in the positive sense of ADM after the programmed sessions. Of the total of subjects, 65% presented 2cm (5%) of shorten muscle difference for normal ADM. Already in the inclination to the left before the treatment 25% of the sample, it reached the average of 26cm, where 14cm were the difference of the normal angle, with 35% of shorten muscle, 40% of those examined conquered the average of 33,5cm, where 6,5cm were the mark diferencial accusing 16,25% of shorten muscle. In the other ones 35% of the subjects, the average was of 37cm, the difference of shorten muscle of 3cm and the percentage of 7,5%. In the lateral inclination to the left after the treatment, ADM of 25% of the sample was revealed with average of 33,5cm, shorten muscle difference in 6,5cm and percentile of shorten muscle in 16,25%. Though, the others 75% of the sampling, they demonstrated an average of 38,5cm, a difference of shorten muscle of 1,5cm and a percentile of 3,75% of shorten muscle. It can be evidenced like this to the we compare the Tables 7 and 8, that in the cervical inclination to the left after the program, 75% of the sample indicated 1,5cm of shorten muscle, when compared normal ADM, appearing in that way only 3,75% of shorten muscle.

Table 7- Comparison among ADM column Cervical in left Inclination before treatment

N	ADM Cm Before	Medium ADM cm	ADM cm Normal	Dif retr cm	% retr	% N
5	23 – 28	26	40	14	35	25
8	30 – 35	33,5	40	6,5	16,25	40
7	36 – 38	37	40	3	7,5	35
20						100

Table 8- Comparison among ADM column Cervical in left Inclination later treatment

N	ADM Cm Later	Med ADM cm	ADM Cm Normal	Dif Retr cm	% retr	% N
5	32-35	33,5	40	6,5	16,25	25
15	36-40	38,5	40	1,5	3,75	75
20						100

In the same way, the verification of the width of movement of the lumbar column, was measured, in agreement with approximate references mentioned by the authors COLE apud KRUSSEN (1986), HOPPENFELD(1987), KOTTKE (1994) and MARQUES(1997), in flexão (95º), of extension (35º) and lateral inclination (40º), according to presented values and demonstrated in the tables to proceed.

Table 9-ADM of the col. Lumbar / Flexão before treatment

Table 9-ADM of the col. Lumbar / Flexão before treatment

N	ADM cm Before	Médium ADM cm	ADM cm Normal	Dif retr cm	% retr	% N
8	68- 77	73	95	22	23,16	40
6	78- 85	81,5	95	13,5	14,21	30
6	86- 90	88	95	7	7,36	30
20						100

Table 10 - ADM of the Lumbar column / Flexão later treatment

N	ADM cm Later	Med ADM cm	ADM cm Normal	Dif Ret cm	% retr	%N
8	79-88	83	95	12,0	12,63	40
12	89-95	92	95	3,0	3,15	60
20						100

Before the results the Table 9, allows to verify us that in the flexão of the lumbar column, before the sessions; 40% of the sample presented average of 73cm of ADM, shorten muscle difference in 22cm and 23,16% of ADM smaller front to the normal suggested by MARQUES(1997). It was observed that 30% of the subjects had average of 81,5cm, shorten muscle difference in 13,5cm and 14,21% lacking for the maximum value of ADM. The remaining 30% reached 88cm of ADM, 7cm unless the normal accusing the percentage of 7,36%.

It was noticed that presented average of 83cm of flexão of the lumbar column after the treatment 40% of the subjects, allowing to verify that the shorten muscle difference was of 12cm, indicating 12,63% in the percentile, already other 60% of the sample stood out in presenting minimum differences, where the average accused 92cm, with 3,0cm of shorten

muscle and the percentile in 3,15%, according to Table 10.

We observed that in the extension of the lumbar column before the treatment, 35% of those researched indicated the average of 24,5cm, accusing 10,5cm unless normal ADM, indicating 30% of shorten muscle, already 65% of the sample demonstrated average of 30,0cm, difference of shorten muscle of 5,0 cm and 14,28% of percentile equivalent the this difference.

Table 11 -ADM column Lombar/Extensão before treatment

N	ADM cm Before	Medium ADM cm	ADM cm Normal	Dif retr cm	% retr	% N
7	22-27	24,5	35	10,5	30	35
13	28-32	30,0	35	5,0	14,28	65
20						100

Table 12 - ADM column Lombar/Extensão later Treatment

N	ADM cm Later	Med ADM cm	ADM cm Norm	Dif retr cm	% retr	% N
5	29-31	30	35	5,0	14,28	25
15	32-35	33,5	35	1,5	4,28	75
20						100

Comparing the extension of the lumbar column after the treatment, 25% of the sample indicated 30cm of average, presenting 5,0cm of retração difference and percentile of 14,27%, however, the remaining 75%, they obtained average of 33,5cm, less 1,5cm of shorten muscle and percentile of 4,28%.

Table 13 - ADM of the Lumbar column in right
Inclination before the treatment

Table 13 - ADM of the Lumbar column in right Inclination before the treatment

N	ADM cm Before	Médium ADM cm	ADM cm Normal	Dif Retr cm	% retr	%N
8	20- 29	24,5	40	16,5	38,75	40
12	30- 37	33,5	40	6,5	16,25	60
20						100

Table 14
ADM of the Lumbar column in right Inclination after the treatment

N	ADM cm Later	Med ADM cm	ADM cm Normal	Dif retr cm	% retr	%N
4	32-35	33,5	40	6,5	16,25	20
16	36-40	39	40 40	1,0	2,5	80
20						100

The right inclination before the treatment demonstrated in the Table 13, it indicates that 40% of the sampling, it presented 24,5cm of average of ADM, with difference of 16,5cm for normal ADM, with 38,75% of percentile smaller in the negative sense and the other ones 60% of the sample demonstrated 33,5cm of average, with less 6,5cm and percentile of 16,25% of shorten muscle. In this sense the inclination the right after the treatment, was verified that, 20% of those examined presented 33,5% of average with 6,5cm negative and percentile of shorten muscle of 16,25%, however the values of the differences of 80% of the sampling, obtained the average of 39cm, fastening the difference in only 1,0cm and percentile of 2,5%, indicating that it had won in the positive sense of the shorten muscle in relation to inclination to the right.

Table 15 -ADM Lumbar column in left
Inclination before treatment

N	ADM cm Before	Medium ADM cm	ADM cm Normal	Dif retr cm	% retr	% N
8	20-29	24.5	40	16,5	38,75	40
12	30-37	33,5	40	6,5	16,25	60
20						100

Table 16 - ADM Lumbar column in Left
Inclination later treatment

N	ADM cm Later	Med ADM cm	ADM cm Normal	Dif retr cm	% retr	% N
5	32-35	33,5	40	6,5	16,25	25
15	36-40	38,5	40	1,5	3,75	75
20						100

The left inclination before the treatment, was obtained in the measured with the goniometro, that 40% of the sampling, it presented 24,5cm of average of ADM, with difference of 16,5cm for normal ADM, with 38,75% of percentile smaller in the negative sense and the other ones 60% of the sample demonstrated 33,5cm of average, with less 6,5cm and percentile of 16,25% of shorten muscle.

The inclination to the left after the treatment, where, 25% of the sampling presented average values in 33,5cm with 6,5cm of smaller ADM, being that difference accused in 16,25%; already in 75% the sampling those values were demonstrated as, 38,5cm, where the minimum difference was of 1,5cm accusing a percentile of 3,75%. It was noticed that had won in the positive sense of the shorten muscle described in the table 45, indicating that it had won in the positive sense of the shorten muscle in relation to inclination to the right.

CONCLUSION

The results found in this study accordingly their limitations drive us to assure that the women with Syndrome of Fibromialgia presented in the first moment, pré-treatment, alterations in the movement width to articulate of the cervical column and of the lumbar column, as physical exam accomplished through physical evaluation using the goniometro.

The physical agents' use as Ultrasound, you Have and Cinesioterapia with specific technique of prolongation, were proposed in the sense of interfering in those altered conditions. The found results appear for the effectiveness of that treatment verified in a second moment, post-treatment, being the following insured conclusions:

It was observed that the prolongations of the cervical column in flexão, extension, right lateral deviation and left lateral deviation, as well as the prolongations of the lumbar column in flexão, extension, inclination right and lateral lateral left inclination increased, contributing satisfactorily to the increase of the movement width to articulate.

Like this, analyzing these results, it makes possible to conclude us that the use of resources physiotherapy as you TENS, Ultrasound and Cinesioterapia through prolongations, can favor positively in the movement width to articulate in the analyzed women attacked by fibromialgy.

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MEASUREMENT OF THE ARCH OF MOVEMENT OF THE CERVICAL AND LUMBAR COLUMN IN WOMEN WITH SYNDROME OF FIBROMIALGY

Summary

INTRODUCTION: The fibromialgy is a form of rheumatism that attacks woven soft of the body causing pain, to dilate, fatigues, contraction muscle, to shorten muscle, besides upset as depression, anxiety and despair; attacking the feminine sex predominantly. **OBJECTIVE**: Measurement the Arch of Movement of the column (ADM) cervical and lumbar of women with fibromialgy syndrome before and after the treatment physiotherapy. **METHODOLOGY:** The sample was composed by 20 subjects female, with ages between 19 and 57 years; to verify the Arch of Movement Goniômetro it was used marks Pró-Fisiomed, presenting two arms of eighteen centimeters of length and four comma five centimeters of width that it demarcates this width, with a central hole that holds and it stabilizes the arms called of fulcrum, all the subjects submitted the sessions physiotherapy of 40 minutes, twice in the week, in a period of ten weeks, receiving treatment with apparels physiotherapy ultrasound 01Mhz, it marks Ibramed - Sonopulse III, Have marks Ibramed type Physiotonus Four II, besides spine prolongations and inferior members. **RESULTS:** It was observed that there was increase in ADM of the cervical and lumbar column in all of the movements analisados. **CONCLUSION:** The found results appear for the effectiveness of that treatment verified in a second moment, powder-treatment, where it was observed that the prolongations of the cervical column in flexão, extension, right lateral deviation and left lateral deviation, as well as the prolongations of the lumbar column in flexão, extension, inclination right and lateral lateral left inclination increased, contributing satisfactorily to the increase of the movement width to articulate.

Word-key: Arch of Movement, Fibromialgia, treatment physiotherapy

MESURE DE LA VOÛTE DE MOUVEMENT DE LA COLONNE CERVICALE ET LOMBAIRE DANS FEMMES AVEC SYNDROME DE FIBROMIALGY

Le résumé

L'INTRODUCTION: Le fibromialgy est une forme de rhumatisme qui attaque tissé doux du corps qui cause la douleur, dilater, treillis, le muscle de la contraction, raccourcir le muscle, a renversé comme dépression, inquiétude et désespoir en plus; attaquer le sexe féminin d'une manière prédominante. **L'OBJECTIF:** La mesure la Voûte de Mouvement de la colonne (ADM) cervical et lombaire de femmes avec syndrome du fibromialgy avant et après la physiothérapie du traitement. **LA MÉTHODOLOGIE**: L'échantillon a été composé par 20 femme des sujets, avec âges entre 19 et 57 années; vérifier la Voûte de Mouvement Goniômetro il a été utilisé des marques Pró - Fisiomed, en présentant deux bras de dix-huit centimètres de longueur et quatre virgule cinq centimètres de largeur qu'il délimite cette largeur, avec un trou central qui tient et il se stabilise les bras appelés de pivot, tous les sujets ont soumis la physiothérapie des sessions de 40 minutes, deux fois dans la semaine, dans une période de dix semaines, recevoir le traitement avec physiothérapie des vêtements ultrason 01Mhz, il marque Ibramed - Sonopulse III, Ayez des marques Ibramed écrivent à la machine Physiotonus Quatre II, excepté prorogations de la colonne vertébrale et membres inférieurs. **LES RÉSULTATS**: Il a été observé qu'il y avait l'augmentation dans ADM de la colonne cervicale et lombaire dans tout de l'analisados des mouvements. **LA CONCLUSION**: Les résultats trouvé paraissent pour l'efficacité de ce traitement vérifiée dans un deuxième moment, poudre traitement où il a été observé que les prorogations de la colonne cervicale dans flexão, extension, droit déviation latérale et gauche déviation latérale, aussi bien que les prorogations de la colonne lombaire dans flexão, l'extension, droit de l'inclination et inclination gauche latérale latérale ont augmenté, en contribuant à l'augmentation de la largeur du mouvement pour articuler d'une manière satisfaisante.

La mot clef: Voûte de Mouvement, Fibromialgia, physiothérapie du traitement,

MENSURAÇÃO DEL ARCO DE LA COLUMNA CERVICAL Y LOMBAR DE MUYERES CON EL SÍNDROME DE FIBROMIALGIA

RESUMEN

INTRODUCCIÓN: La fibromialgia es una forma de reumatismo que acomete los tejidos blandos del curriendo dolor, edema, fatiga, cansancio,contracción y retracciones musculares, además de transtornos como depresión, ansiedad y desesperación; acometiendo predominantemente el sexo feminino. **OBJETO:** Medir el Arco de Movimiento de la columna (ADM) cervical y lombar de muyeres con síndrome de la fibromialgia antes y despéus del tratamiento fisioterapeutico. **METODOLOGíA**: La muestra fue compuesta por 20 sujetos del sexo femenino, con edades entre el 19 y 57 años; para verificar el Arco de Movimiento se utilizó Goniómetro tipo Pró Fisiomed, presentando dos brazos de dieciocho (18) centímetros de largo y cuatro coma cinco (4,5) centimetros de ancho que demarca esta amplitud, con un agujero central que ataja y estabiliza los brazos llamados Fulcro (ipoyo), todos los sujetos se submetieron a sesiones fisioterapeuticas de 40 (cuarenta) minutos, dos veces a la semana, en un período de 10 (diez) semanas, recibiendo tratamiento con aparatos fisioterapeuticos ultra-som 01 Mhz, marca Ibramed Sonopulse III, Tens marca Ibramed tipo Physiotonus Four II, además de alargamientos de la columna vertebral y miembros inferiores. **RESULTADOS:** Se observó que hubo aumento en la ADM de la comumna cervical y lombar en todos los movimientos analisados. **CONCLUSIÓN:** Los resultados encontrados apuntan a la eficacia de ese tratamento verificadas en un segundo momento, pos tratamiento, donde se observó que los alongamientos de la columna cervical en flexión, estensión, desvío lateral derecho y desvío lateral izquierdo , bien como los alargamientos de la columna lombar en flexión, inclinación lateral derecha y inclinación lateral izquierda aumentaron, contribujendo positivamente para el aumento de la amplitud del movimiento articular .

PALABRAS CLAVE: Arco del Movimiento, Fibromialgia, Tratamiento Fisioterapeutico

MENSURAÇÃO DO ARCO DE MOVIMENTO DA COLUNA CERVICAL E LOMBAR EM MULHERES COM SÍNDROME DE FIBROMIALGIA

Resumo

INTRODUÇÃO: A fibromialgia é uma forma de reumatismo que acomete tecidos moles do corpo causando dor, edema, fadiga, cansaço, contratura e retrações musculares, além de transtornos como depressão, ansiedade e desesperança; acometendo predominantemente o sexo feminino. **OBJETIVO**: Mensurar o Arco de Movimento da coluna(ADM) cervical e lombar de mulheres com síndrome de fibromialgia antes e depois do tratamento fisioterapeutico. **METODOLOGIA**: A amostra foi composta por 20 sujeitos do sexo feminino, com idades entre 19 e 57 anos; para verificar o Arco de Movimento utilizou-se Goniômetro marca Pró Fisiomed, apresentando dois braços de dezoito centímetros de comprimento e quatro vírgula cinco centímetros de largura que demarca esta amplitude, com um furo central que segura e estabiliza os braços chamado de fulcro, todos os sujeitos submeteram-se as sessões fisioterapeuticas de 40 minutos, duas vezes na semana, num período de dez semanas, recebendo tratamento com aparelhos fisioterapeuticos ultra-som 01Mhz, marca Ibramed Sonopulse III, Tens marca Ibramed tipo Physiotonus Four II, além de alongamentos de coluna vertebral e membros inferiores. **RESULTADOS**: observou-se que houve aumento na ADM da coluna cervical e lombar em todos os movimentos analisados.**CONCLUSÃO**: Os resultados encontrados apontam para a eficácia desse tratamento verificadas num segundo momento, pós-tratamento, onde observou-se que os alongamentos da coluna cervical em flexão, extensão, desvio lateral direito e desvio lateral esquerdo, bem como os alongamentos da coluna lombar em flexão, extensão, inclinação lateral direita e inclinação lateral esquerda aumentaram, contribuindo satisfatoriamente para o aumento da amplitude de movimento articular.

Palavras-chaves: Arco de Movimento, Fibromialgia, Tratamento Fisioterapeutico.