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# Effects of the treatment of acute lumbar painful syndrome (ALPS) by "PRAXIS METHOD" during the period from 1996 to 2000

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## Summary

Acute lumbar syndrome occurs suddenly and is accompanied with strong pain in the lower part of the back. The most frequent APLS causes are vertebral (herniation of intervertebral disc, spondylolisthesis of intervertebral disc, spondylolisthesis of intervertebral joint, fracture of vertebra - traumatic or pathological), or extravertebral (spondylolisthesis of sacroiliac joint, acute bursitis of iliolumbar segment, muscle injuries or injuries of tendo-ligamentous apparatus of lumbosacral region).

The treatment of acute lumbar painful syndrome is classified as medical, alternatively medical, surgical and combined. On the basis of durable experience, "Praxis method" as a treatment of lumbar pain (general and acute) is being applied in the Centre for Physical Medicine and Rehabilitation "Praxis" in Sarajevo. During the period from 1996 to 2000, the total number of 5.663 patients were examined in the centre "Praxis". Out of that number, 17.7% (1.003) of patients had acute lumbar painful syndrome (ALPS). Immediately after the therapeutic manipulation, which included "Praxis method, 31.5% (317) patients experienced the cessation of pains followed by ending of the treatment. The length of treatment for the rest of patients lasted: 1-7 days in 412 or 41.07% of patients, 8-21 days in 195 or 19.48% of patients, and more than 21 days in 79 or 7.88% of patients. For all patients (1.003) the average treatment duration was 6.6 days. The recidivation occurred in 127 patients (12.66%).

Throughout the treatment successfulness estimation according to clinical results scaled from 0 to 5, it was confirmed that out of the total number of 831 patients (82.85%) results were excellent in 459 patients (45.76%) or very good in 372 patients (35.09%).

The average age of patients was ranging between 35 and 45 years (621 patients or 61.9%). The male/female distribution was 2:1.

**Key words:** acute lumbar painful syndrome, "Praxis method".

## Introduction

Acute lumbar syndrome problem solution (marked as M54.5 per X Revision of the international classification) is very delicate. Usually, the syndrome is accompanied with very strong pains and physical disablement. Acute lumbar painful syndrome is defined as a sudden, progressive pain in the lumbar region (sacro segment), with or without irradiation into lower extremities, and without neurological deficiency (1, 2, 3).

Lumbar painful syndrome represents the most frequent reason for patients', mostly work-active, visits to their physicians. Health care system, because of direct or indirect expenses, ensures the significant financial means for such patients (4, 5, 6).

According to the literature data (USA) lumbar pain makes 25% of all work injuries and causes the loss of 1400 working days on 1 000 employed persons a year (6, 7, 8, 9).

National statistics of European countries discovers that out of the 10 absences from work two relates to the persons with lumbar pain. The one-year prevalence is 25-45% while chronic lumbar pain occurs in 3-7% of adult persons (10, 11, 12).

Lumbar painful syndrome most frequently occurs in people of productive age (30-50 years of age). In the majority, it is accompanied with disablement to work and requires adequate medical treatment. The significant number of cases alters into the chronic form with prolongation of the painful phase, dysfunction, and working disablement (12).

Data on the frequency of lumbar painful syndrome in B&H are still being not particularly registered or systematically followed. Our own results of the treatment of patients with lumbar painful syndrome, during the period before 1992 and after 1995, show the identical lumbar painful syndrome trend as in other moderately developed countries (12).

Incidence of the patients with back pain is 5% a year. According to literature, 60-90% of adult persons experience back pain once in a life-time, while the pain tends to

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repeat in 50% of these patients. According to Kenneth Mills, almost all persons older than 40 years have severe lumbar pains (4, 5, 13, 14).

Frequent lumbar painful syndrome occurrence in the world and in our country as well, required this study performance taking in consideration the cause of illness and the application of contemporary treatment. The reasons were not only medical, but also the economic ones.

Treatment of the lumbar painful syndrome according to various schools is applied by different methods and procedures. Operative procedure, performed when back pain is caused by hernia disc, is sufficiently frequent.

The long-term repeated stress, postural positional or sudden mechanical pressure, which does not immediately result in pains, can in the case of frequent subliminal microtrauma result in degeneration of the back and lumbar pain.

The special problem is a treatment of the acute lumbar syndrome, (marked as M54.5 according to X Revision of the International Classification) which is, because of its multi-causality, very delicate and often leads to physical disablement.

The most frequent APLS causes are vertebral (herniation of intervertebral disc, subluxation of intervertebral disc, subluxation of intervertebral joint, fracture of vertebra - traumatic or pathological), or extravertebral (subluxation of sacroiliac joint, acute bursitis of iliolumbar segment, muscle injuries or injuries of tendo-ligamentous apparatus of lumbosacral region).

## Material and methods

The sample for our research was differently aged persons treated because of the acute lumbar painful syndrome (ALPS) in CBR "Praxis" during the period from January 1st, 1996 till December 31st, 2000. All of them suffered from ALPS without radicular manifestation. APLS was treated by "Praxis" method based on the twenty-five years of experimental work of the author. Beside the classic treating methods, it included alternative medical procedures:

1. manual therapy,
2. local paravertebral application of the small dosages of depot corticoids,
3. rest in the phase of strong pains

Manual therapy, 1st to 3rd degree and strongly individually dosed, was applied in all cases of acute lumbar painful syndrome, with the resting up to 3 days and/or with the paravertebral application of depot corticoides.

After the painful phase, if the curing had not been achieved, a proper physical therapy was applied:

1. current analgesics for persisting pains,
2. manual massage,
3. dosed and specifically adjusted exercises (static and dynamic ones according to Brunk, Regan and Mecensi),
4. acupuncture in the case of persisting pain,
5. manual therapy (chiropractics) periodically as a recidivation prevention,
6. education for the performing of everyday exercises and for adoption of the protective positions by different activities.

All results are statistically processed and presented in tables and graphs.

The successfulness of treatment is expressed as an estimation of the clinical state of patients after the treatment according to scheme:

1. estimation "0": unchanged state (without treatment results),
2. estimation "2": minimal improvement,
3. estimation "3": satisfying functional improvement with sequelae (sensor or motor ones),
4. estimation "4": well improvement and satisfying functional restitution with sequelae,
5. estimation "5": good restitution without injury or disease consequences,
6. estimation "6": abandonment of treatment,
7. estimation "7": necessity for further medical treatment.

Patients treated in the centre "Praxis" were distributed into seven groups. Determined indexes were average age and mean data standard deviation. The same indexes were demonstrated throughout the estimation of result successfulness.

## Results and discussion

In the observed five-years sample, out of 5663 patients with lumbar pain treated in the Centre for Physical Medicine and Rehabilitation "Praxis", the group M.54.5 of 1003 (17.71%) patients had acute lumbar pains (in accordance with the more recent literature).

**Table 1** Summary review of all patients with lumbar painful syndrome treated in the centre "Praxis" during the period from 1996 to 2000

|              |                                 | Number of patients |
|--------------|---------------------------------|--------------------|
| <b>M51</b>   | <b>Disc hernia</b>              | <b>1431</b>        |
| <b>M54.5</b> | <b>Acute LS</b>                 | <b>1003</b>        |
| <b>M54.4</b> | <b>Chronic LS</b>               | <b>1240</b>        |
| <b>G55</b>   | <b>Radicular syndrome</b>       | <b>1025</b>        |
| <b>G54.5</b> | <b>Lumboischialgic syndrome</b> | <b>964</b>         |
| <b>TOTAL</b> |                                 | <b>5663</b>        |

**Graph 1** Summary review of all patients with lumbar painful syndrome treated in the centre "Praxis" during the period from 1996 to 2000

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G54.5 Lumboischialgic syndrome 17%  
M51 Disc hernia 25%  
G55 Radicular Sy. 18%  
M54.4 Chronic LS 22%  
M54.5 Acute LS 18%

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**Table 2** Sex structures of the patients with lumbar painful syndrome treated in the centre "Praxis" during the period from 1996 to 2000

| <b>M54.5</b>                          | <b>No. of patients</b> |
|---------------------------------------|------------------------|
| <b>Acute LPS</b>                      |                        |
| <b>Males</b>                          | <b>638</b>             |
| <b>Females</b>                        | <b>364</b>             |
| <b>Children up to 14 years of age</b> | <b>1</b>               |
| <b>Total</b>                          | <b>1003</b>            |

The 2:1 ratio for males (638 or 63.62%) and females (364 or 36.29%) with ALPS (Table 2 and Graph 2) indicates that male persons often work at more difficult physical jobs. This datum is in accordance with literature.

**Table 3** Length of the treatment of patients treated in the centre "Praxis" during the period from 1996 to 2000; 6663 treatment days  
Average = 6.6 days

|                       | <b>Instantly</b> | <b>1-7 days</b> | <b>8-21 days</b> | <b>&gt; 21 days</b> | <b>Totally</b> | <b>Recidivation</b> |
|-----------------------|------------------|-----------------|------------------|---------------------|----------------|---------------------|
|                       | <b>317</b>       | <b>412</b>      | <b>195</b>       | <b>79</b>           |                | <b>12</b>           |
| <b>Treatment days</b> | <b>317</b>       | <b>1755</b>     | <b>2237</b>      | <b>2354</b>         | <b>6663</b>    |                     |

**Table 4** The results of the treatment of patients with acute lumbar syndrome treated in the surgery "Praxis" during the period from 1996 to 2000

| <b>Per treatment results:</b> | <b>0</b> | <b>2</b> | <b>3</b>  | <b>4</b>   | <b>5</b>   | <b>6</b>  | <b>7</b>  |
|-------------------------------|----------|----------|-----------|------------|------------|-----------|-----------|
|                               | <b>0</b> | <b>2</b> | <b>98</b> | <b>372</b> | <b>459</b> | <b>19</b> | <b>53</b> |

**Graph 2** Sex structures of the patients with lumbar painful syndrome treated in the centre "Praxis" during the period from 1996 to 2000

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Females 36%  
Males 64%

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**Graph 3** Length of the treatment of patients treated in the centre "Praxis" during the period from 1996 to 2000

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8-21 days 19%  
> 21 days 8%  
Instantly 32%  
1-7 days 41%

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The conclusion can be drawn according to two indexes:

1. number of treatment days, and
2. estimation of successfulness.

Table 3 and graph 3 are demonstrating the length of treatment in the patients with ALPS. Impressive fact is that, immediately after the therapeutic manipulation that included "Praxis method", 31.6% (317) of patients experienced the cessation of pains followed by the ending of treatment. This is considerable because the working ability of these patients was not affected, illness did not develop into the chronic state, and the overall cost of illness was not increased. The length of treatment for the rest of patients lasted: 1-7 days in 412 or 41.07% of patients, 8-21 days in 195 or 19.48% of patients, and more than 21 days in 79 or 7.88% of patients. For all patients (1.003) the average treatment duration was 6.6 days. The recidivation occurred in 127 patients (12.66%).

**Graph 4** Review of the recidivation number in patients with acute lumbar syndrome treated in the surgery "Praxis" during the period from 1996 to 2000

Throughout the treatment successfulness estimation according to clinical results scaled from 0 to 5, it was confirmed that out the total number of 831 patients (82.85%) results were excellent in 459 patients (45.76%) or very good in 372 patients (35.09%).

The majority of patients with ALPS, after the treatment in surgery "Praxis", had a good health restitution without sequelae and recidivations. A good health improvement and satisfying functional restitution with minimal sequelae were observed in the another group of patients what in overall makes more than four fifths of patients. A satisfying functional improvement was observed in 98 (9.78%) of patients having minimal sequelae. The result was that 929 of patients (93.54%) successfully finished the treatment.

Beside the duration of treatment and the estimation of treatment successfulness, the age structure of patients is important from the economic point of view.

In our sample (Table 5 and Graph 6), the greatest number of patient were aged from 35 to 54 years (people of the most productive life age). The number of patients aged from 35 to 44 years was 352 or 35.09% and from 45 to 54 years the patients' number was 269 or 26.81%. The number of patient aged below 25 years and above 64 years abruptly decreased.

**Table 5** Age structure of the patients with acute lumbar syndrome treated in the centre "Praxis" during the period from 1996 to 2000

| Per treatment results: | 0 | 2 | 3  | 4   | 5   | 6  | 7  |
|------------------------|---|---|----|-----|-----|----|----|
|                        | 0 | 2 | 98 | 372 | 459 | 19 | 53 |

**Graph 5** Age structure of the patients with acute lumbar syndrome treated in the centre "Praxis" during the period from 1996 to 2000

## Conclusions

From the overall number of patients treated for the lumbar painful syndrome during the period of 5 years in the Centre for Physical Medicine and Rehabilitation 17.71% or 1003 had ALPS. Almost twice as many patients with ALPS were male patients.

Exactly 317 (31.6%) of patients instantly recovered after the first treatment by therapeutic manipulation as a part of the "Praxis" method while 729 (72.68%) of patients recovered within the first 7 days.

Throughout the treatment successfulness estimation it was confirmed that 459 patients (45.76%) achieved good restitution without consequences, a good improvement with satisfying restitution and minimal sequelae was observed in 372 patients and a satisfying functional improvement was observed in 929 (93.15%).

The majority of patients suffering from APLS belonged to the most productive life age.

Our results show, that the empiric method introduced as a doctrinaire one and applied in the treatment of patients with ALPS expressed a high degree of successfulness in the treatment of ALPS in comparison to the other methods. In the same time, such treatment had medical and economic advantages.

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