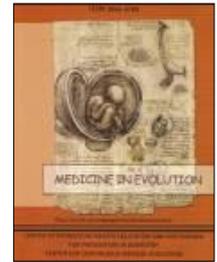


LIFE QUALITY IN SPONDYLITIS PATIENTS WITH OCCUPATIONAL LUMBOSACRAL PAIN



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ABSTRACT

Introduction: Lumbosacral pain, a major symptom in spondylitis patients, augmented by various professional activities, becomes extremely important for the prognosis of this disease.

Aim: To evaluate the life quality of the spondylitis patients with various occupations, the way it is influenced by the type of activity and to reveal the importance of an early, complex treatment for increasing life quality of these patients.

Material and method: During a three years period, 128 spondylitis patients with lumbosacral pain, having various professions, were included into the study and further classified into two homogenous groups, subjected to a complex evaluation and received group-differentiated treatments.

Results: Lumbosacral pain in spondylitis patients is related to the number of hours of daily work, the duration of employment, the type of physical activity performed during and outside the programme of work and the therapeutic success depends on its complexity and on patient compliance.

Conclusions: Spondylitis patients with lumbosacral pain, augmented by professional activity, who received a complex treatment, had a significant improvement of their life quality.

Key words: lumbosacral pain, medical rehabilitation, life quality.

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INTRODUCTION

Lumbosacral pain is present in 70% of ankylosing spondylitis (AS) patients from the onset of the disease, sometimes being the first and only symptom¹.

Around 5% of the patients who address the physician for chronic inflammatory lumbar pain has AS or another disease from the group of seronegative spondyloarthropathies (SpA)². The prognostic importance of the lumbar inflammatory pain consists of a probable evolution towards AS³, in most cases this lower lumbar pain being closely connected to the physical effort at the workplace, thus delaying the diagnosis with around 8 years on average, during which irreversible osteoarticular, muscular, immunological and psychological changes, with im-

portant socio-economic and life quality connected consequences, occur.

The lumbosacral syndrome causes physical and psychological discomfort, being a frequent cause of work incapacity, studies showing that around 80-85% of the population develops at least one episode of lower lumbar pain at some point during a lifetime^{4,5,6}.

The socio-economic impact of AS is represented by: the prevalence (1%), onset at young age (18-30 years), during the most productive period of life and rapid progression to ankylosis and invalidity which determines retirement during the first year after the diagnosis of 5% of the patients, while 80% of them become invalids after 10 years; life expectancy of patients is decreased with 5 - 10 years^{7,8}.

THE AIM OF THE PAPER

- To assess the life quality of the spondylitis patient with various occupations and the way this is influenced by the type of activity;
- To underline the importance of early diagnosis of AS;
- To reveal the importance of complex, early, sustained and longterm treatment;
- To increase life quality in spondylitis patients with lumbosacral pain by involving them in a complex programme of medical rehabilitation;
- To assess the influence of the medical rehabilitation programme on life quality and treatment compliance.

MATERIAL AND METHOD

During a three years period (May 2008 - May 2011), we studied 128 patients with secondary chronic lumbosacral pain, aged between 18 and 51 years, having various occupations: 28 workers without special qualifications, 4 hairdressers, 4 pastry workers, 4 waiters, 14 dentists, 6 physicians with other specialities, 12 teachers, 24 drivers, 16 IT specialists, 8 economists, 8 cashiers.

All the 128 patients went through 11 evaluations: initial - E0 and final - Ef (complex clinical; paraclinical: X-ray examination of the lumbar spinal cord - lateral and the pelvic girdle for the sacro-iliac bones, laboratory investigations: quantitative CRP; visual analogic scale (VAS) of pain; life quality assessment by use of the HAQ-S (Health Assessment Questionnaire Modified For Spondyloarthropathies)) and 9 inter-

mediate evaluations: monthly during the first three months (E1, E2, E3), every three months until the end of the first year (E6, E9, E12), and then, every 6 months (E18, E24, E30), consisting of:

complex clinical examination, laboratory investigation: quantitative CRP, visual analogic scale (VAS) of pain, life quality assessment by HAQ-S (9, 10, 11).



Fig.1 The specific physiokinethotherapy applied (a-b analgesic, decontracting, miorelaxing electrotherapy: TENS, ultrasound; c-d manual rexaxing massage; e-p individualized kinethotherapy programme) – personal collection; with the informed consent of the patient.

The 128 subjects were classified into two homogenous groups and di-

fferentiated treatment regimens were applied to each group:

group 1 received a complex symptomatic treatment (analgesics: Dexketoprofenum 25mg/day, Pregabalinum 75mg/day; Gabapentinum 300 mg / day; NSAID drugs: Meloxicamum 15mg / day, Celecoxibum 200 mg / day; miorelaxing drugs: Tolperisonum 150 mg / day) in intermittent cures, according to the frequency of rebounds; immunosuppressive treatment in 34 cases of spondylitis with peripheral manifestations (Sulfasalazinum 3g/day) and specific physiotherapeutic - fig.1 (a-b electrotherapy for analgesic, decontracting, miorelaxing purposes: transcutaneous electrical nerve stimulation (TENS), ultrasound; c-d manual relaxing massage; e-p individualized kinetotherapy programme): 30 sessions, twice a year (10 sessions a day, 10 sessions 3 x 1/week, 10 sessions 2 x 1 /

week), with the following objectives: improving the general status, slowing or arresting the progression of the disease by analgesic and antiinflammatory effects, maintaining and correcting the body posture and alignment, articular flexibility and muscular tonus, maintaining and increasing mobilizable respiratory volumes.

group 2 received the same treatment as the patients in group 1 with additional biological therapy with anti TNF α monoclonal antibodies (36 patients - etanercept, 16 patients - adalimumab, 12 patients - infliximab) - according to approved operational protocols ^{7,8} and an individualized kinetotherapy programme adapted for home, with concomitant adherence to orthopedic hygiene and back school measures.

RESULTS

1. A predominance of the male gender was observed (68.5%), reported to the female gender (31.25%), in spondylitis patients with occupational lumbosacral pain.
2. Lumbosacral pain in spondylitis patients was augmented by:
 - duration of work;
 - average number of hours of work/day;
 - physical activity outside the work programme;
 - long interval from the onset of symptoms to diagnosis and initiation of treatment;
 - intense physical effort, without conformance to orthopedic hygiene and back school measures;
 - continuous activity at the work place, without taking necessary breaks or with inadequate break periods.
3. Most patients have a duration of work between 11 and 20 years (fig.2) and work 6-8 hours a day, with alternant activity regimens - 15.62% as compared to 84.37% with continuous activity.
4. The interval from the onset of lumbar vertebral pain symptoms to the diagnosis and initiation of complex therapy is around 8 years (fig.4), during which time the patient is, in most cases, insufficiently investigated or inadequately treated in the absence of a precise diagnosis.
5. The complex assessment methods showed a better evolution of group 2 as compared to group 1, even though initially the complex clinical examination, CRP values, radiological examinations and life quality assessment indexes, as well as the subjective evaluation of pain (VAS) were similar in all three groups (Fig.5, 6).
6. The individualized kinetotherapy programme, adapted for home, proved its effectiveness in the case

of the 64 patients in group 2, their life quality significantly improving as demonstrated by the intermediate and final complex evaluations.

7. The patients in group 2 who received biological therapy with anti TNF α monoclonal antibodies had a more favourable evolution than

patients in group 1, from clinical and biological perspectives (12 weeks after the initiation of therapy the inflammatory tests became normal) and a significant increase in life quality (12 weeks after the initiation of therapy: HAQ-S score increased $\geq 50\%$) (fig.7).

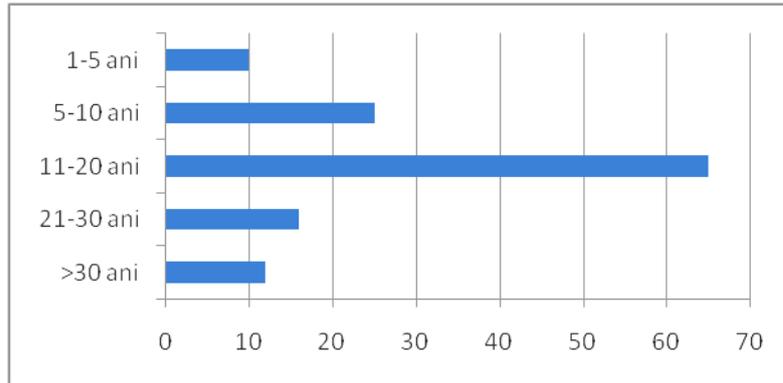


Fig.2 Numeric representation of cases according to duration of work

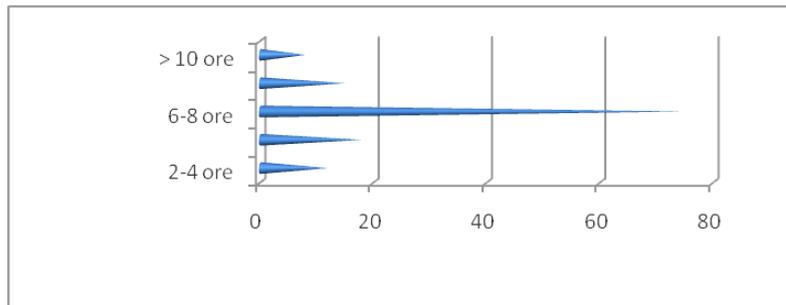


Fig.3 Numeric representation of cases according to the number of hours of work/day

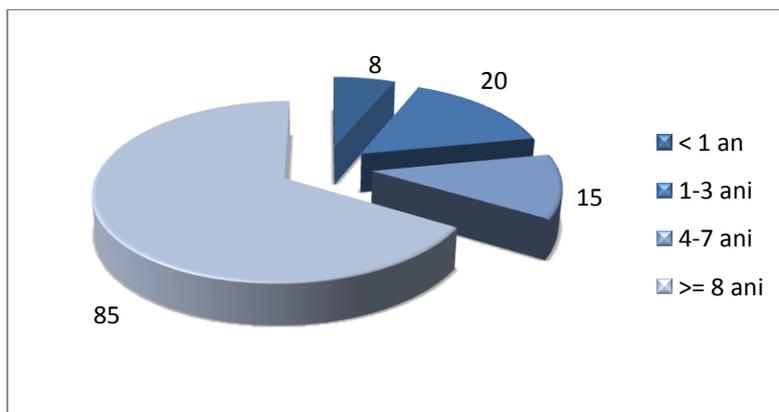


Fig.4 Numeric representation of cases according to the time between the onset of symptoms and the diagnosis

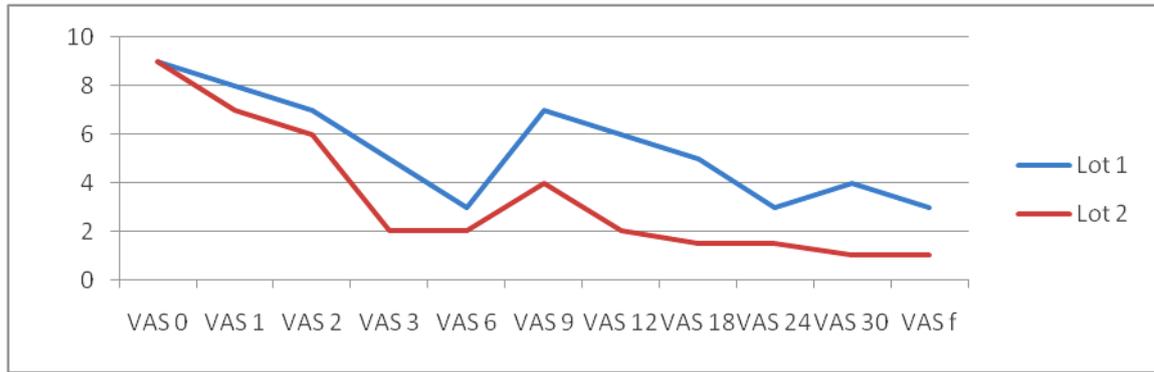


Fig.5 The evolution of average VAS score values

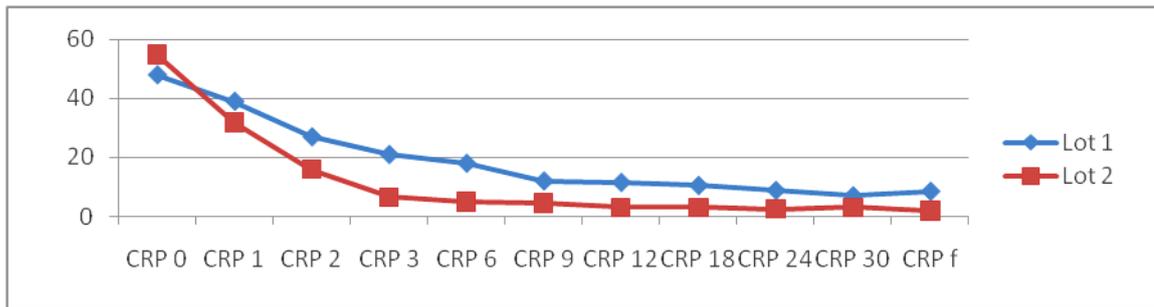


Fig.6 The evolution of average CRP values (mg/l)

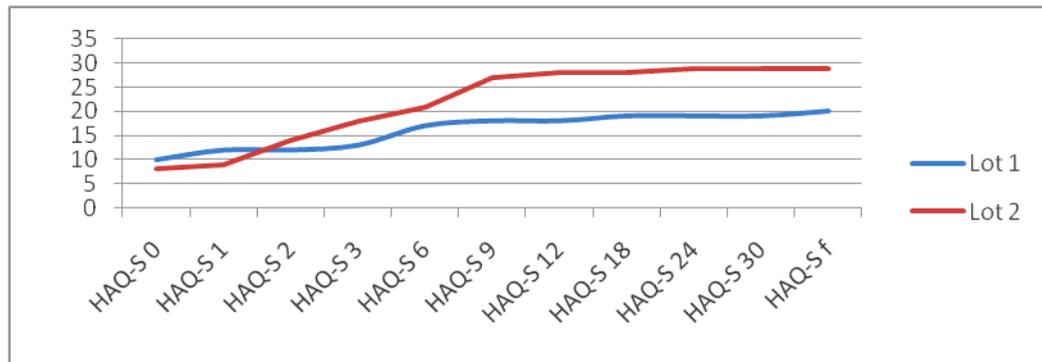


Fig.7 The evolution of HAQ-S score values

CONCLUSIONS

The early diagnosis of AS patients is mandatory, with any lower lumbar pain having to be subjected to complex investigations and monitored and the complex therapy having to be initiated as early as possible in order to prevent further osteoarticular, muscular, immunological and psychological changes with important socio-economic and life quality linked consequences in these patients, keeping in mind that the di-

agnosis is late (eight years on average) thus losing precious time in all aspects: medical, socio-economic and, most importantly, in terms of life quality.

The complex medication associated to the specific kinetoherapy and to an individualized kinetoherapy programme adapted for home, significantly improves the life quality of spondylitis patients with occupation augmented lumbosacral pain, with possible de-

crease of medication dosage in certain cases. The early initiation of a complex medication associated to specific physio-kinetotherapy, with additional home adapted kinetotherapy programmes are needed to increase life quality in these patients, as are the adherence to orthopedic hygiene and back school measures, the use of lumbosacral orthosis, the insertion of breaks during daily occupational activities, ideally every hour, with additional stretching elements.

Clinical, functional and paraclinical parameters obtained after a three years individualized kinetotherapy programme adapted for home in the 64 patients in group 2 support the role of sustained and longterm kinetotherapy

for changing disease activity, probably by activating certain antiinflammatory and disease-modifying factors.

Following the analysis of the studied parameters and by integrating specific physical medicine means, we elaborate the need for multidisciplinary approach of the management of these patients, with a medical team including, together with the rehabilitation physician, other specialists: family doctor, rheumatologist, orthopedist, radiologist physiotherapist, psychological therapist, etc., a team which not only has the role to treat and monitor spondylitis patients but also to establish a timely and accurate diagnosis and to early initiate the adequate therapy.

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