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The piriformis muscle syndrome: Personal series of 250 patients – development of a score and therapeutic suggestions

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Objective.– The piriformis muscle syndrome (PMS) is a controversial entity. Provided that suggests patients with sciatica fluctuating during the same day with often times painless and positional factors predisposing. Sciatica starts in the buttocks with no back pain and a morphological assessment of lumbar disc herniation without image concurring.
Method.– We selected 12 items for clinical and paraclinical in order to separate different populations PMS (250 patients) and sciatica with herniated disc (30 patients).
With no gold standard for diagnosing formally present the PMS, it is necessary to rely on clinical suspicion (score) as well as testing therapeutic oriented (effectiveness of rehabilitation including stretching, injections of botulinum toxin and of surgery)
All patients underwent clinical evaluation and a paraclinical (CT or MRI lumbar MRI pelvis and lower limb EMG). A rehabilitation treatment (therapeutic sheet) was proposed to the PMS Population, then botulinum toxin injections were performed on failure before discussing surgery as a last resort.
Results.– 96.4% of patients suspected of PMS have a score > 8 and 3.6% between 6 and 8, 86.7% of patients with sciatica and herniated disc have a score EMG: delay > 1.8 ms on F response and H-reflex after maneuvering awareness (FAIR) in only 18.4% of cases of PMS without neurogenic signs in detecting, against 30% without significant worsening in the maneuver for FAIR for patients with sciatica and disc herniation. There is neurogenic signs in 86,7% of cases.
We conducted from 2003 to 2011 an open study on 250 patients PMS: 48% are cured only by the rehabilitation treatment, 52% received one to five botulinum toxin injections with 78.4% good and very good results, 15 patients who failed were operated with 13 cures in the suites.
Conclusion.– PMS is a clinical diagnosis, this being confirmed by the beneficial effect of treatment often focused on the piriformis muscle. Complementary examinations are best able to eliminate differential diagnoses

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Validation of foot function and pain questionnaire in French language

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Objective.– The Foot Function Index and the Foot Health Status Questionnaire are used to evaluate the foot health and foot insoleseffects. These tools were translated into French, before we created a global measure of function disability (12 items) and pain (8 items). This new measure was entitled Foot Function and Pain Index (FFPI). We aimed to assess the construct validity, the reliability and the criteria validity (the criteria being pain VAS and the WOMAC for function disability).
Methods.– Fifty-four participants answered the FFPI twice, with a 48 h interval in between. One hundred and twenty participants filled in the FFPI, three pain items with VAS (levels of current pain, worse pain and usual pain during the last eight days) and the WOMAC index, during a single session.
Results.– The factor analysis supported a two-dimension solution, factors explaining respectively 52% and 12% of variance. All the function disability items load correctly on the first factor and all the pain items load on the second factor. Internal consistency is good (Cronbach's $a > 0.90$).The test-retest reliability between Time one and Time two, is correct (Pearson correlations, factor 1 $r = 0.98$; factor 2 $r = 0.86$). Moreover, pain rating with VAS correlates significantly with the pain factor ($r = 0.40$) and with the disability function factor ($r = 0.51$). As for the WOMAC score, correlations with both the pain and the function disability dimensions are good ($r = 0.51$, $r = 0.60$, respectively).
Discussion.– Our study shows that FFPI as a functional and pain status questionnaire is a valid and reliable tool, that can be an adequate and useful instrument in research or clinical practices to evaluate the insole foot effects.

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Chronic pain and rehabilitation: Identification of patients' profiles

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Keywords: Chronic pain; Psychological factors

Introduction.– Psychological factors, notably beliefs and emotional distress, are recognized as influencing the evolution of pain and as being interrelated. So far, few studies have focussed on defining profiles of patients based on psychological factors. The objectives of this study are to identify subgroups of patients in rehabilitation after a musculoskeletal traumatism and to determine their predictive value.
Patients and methods.– Six hundred and seven consecutive patients admitted in rehabilitation after a musculoskeletal traumatism were included and assessed at admission, discharge and one year after discharge. Pain was measured by VAS (Visual Analogical Scale), biopsychosocial complexity by the INTERMED scale (complex: ≥ 21 points). Psychological distress and five types of beliefs (such as fear of movement, fear of pain...) were evaluated by judgement on Likert scales. Hierarchical cluster analysis fine-tuned by a k-means analysis was used to produce subgroups of patients with similar scoring patterns. Linear regression was used to test the associations between subgroups and pain and biopsychosocial complexity at hospitalisation and to predict pain one year after discharge.
Results.– Two subgroups of patient were identified: the first of 368 patients (61%), who tend to be more negative regarding the different beliefs, and a second, of 239 patients (39%), who show a tendency to be more positive in their beliefs. The more negative subgroup reported significantly higher pain intensity and a higher biopsychosocial complexity at admission than the more positive subgroup (mean values respectively for pain 62/100 and 48/100, $P < 0.001$, for biopsychosocial complexity 22 and 18, $P < 0.001$). At one year, the subgroups were always distinct for pain intensity (56/100 and 43/100, $P < 0.001$).
Discussion.– Our results show that it is possible to identify profiles of patients in a rehabilitation context according to pain-related beliefs and psychological distress. These profiles seem still present one year after hospitalization. Questions are still open to understand the evolution of these subgroups of patients and to adjust treatments according to the profiles.

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