Pelvic pain evaluation in humans

Abstract

Chronic pelvic pain (CPP) is defined by the American College of Obstetricians and Gynecologists as “non-cyclic pain of 6 or more months duration that localizes to the anatomic pelvis, anterior abdominal wall at or below the umbilicus, the lumbosacral back, or the buttocks and is of sufficient severity to cause functional disability or lead to medical care” (Fenton et al., 2009). Another definition of CPP, put forward by Fenton et al. (2009), is an unpleasant, subjective, sensory experience confined to the pelvis. This would be generally associated to sensory, motor, affective and behavioral aspects. Pelvic pain can have both a nociceptive and neuropathic physiopathological component; in a chronic context it is not a diagnosis but a description of a clinical condition. In an acute context it may represent the fifth vital sign. This symptom affects women more frequently than men because of genetic, hormonal, anthropological, sociocultural, environmental aspects. (Aloisi AM, 2004.) Because of the strong relation between pain intensity and pain physiopathology, pain measurement awakened a lot of interest in the last 50 years. A suitable qualitative and quantitative pain analysis allows, indeed, a faster and more complete diagnosis which is particularly important in an emergency context. Steege JF (2009) states that scales developed for work for clinical disorders, such as CPP, need to demonstrate the qualities of content validity, test-retest reliability and responsiveness, among others. Pelvic pain measurement includes both verbal and instrumental methods to choose in relation to pain duration (acute or chronic), pathology (whose pain is the symptom), patient sex. The Pelvic Pain Assessment Form and the NIH-CPSI (National Institute of Health-Chronic Prostatic Symptom Index) Questionnaire are the only not instrumental sex-related methods to assess pelvic pain. The Visual Analogue Scale (VAS), the Numerical Rating Scale (NRS), the Pain Diary are the...
most commonly one-dimensional scale used for pain measurement. In particular, the VAS and the NRS are considered to be superior to the First Behavioral Index (BI-1) and to the Second Behavioral Index (BI-2) in acute pelvic pain assessment because of their quickness and easiness of use. Besides, they do not underestimate pain. The McGill Pain Scale, the QUID, the Brief Pain Inventory (BPI), the Oswestry Disability Questionnaire, the Neuropathic Pain Scale, the LANSS Pain Scale, the Neuropathic Pain Symptoms Inventory represent the most successful multidimensional methods to assess pelvic pain. The Quality of Life Questionnaires, such as SF-36, SF-12, testing the effects of pain on the quality of life of the patient, can provide a good contribute to pelvic pain assessment too. The algometry supply an instrumental, suitable and effective measurement of pain sensitivity of pelvic muscles (internal algometer for women), (HC Kuo, 2008), abdominal muscles (pressure portable algometer) which has been demonstrated to be useful in both visceral and somatic pelvic pain. (Tu. F.F. 2007) The pain threshold, given by the device, is defined as the intensity of pressure applied at which a patient reports a change in sensation from pressure to pain (Tu FF, 2008). Thermal algometry, giving the patients two fast trains of painful and thermal stimuli, can demonstrate a variation of thermal pain threshold due to central sensitization aspects likely associated to pelvic pain. In case of a neuropathic component in chronic pelvic pain the Neurometer CPT, (Katims, 1999) an electrodiagnostic device, can measure the current perception threshold (CPT) on small myelinated (A-delta) and unmyelinated (C) afferent nerve fibers giving out stimuli as graduated, alternating current. Nowadays physicians can have a lot of methods to assess pain quality, quantity, and diagnosis at their disposal. Their enjoyment allows to put the pain down to analytical characteristics, converting the symptom into a sign. To objectify a symptom strongly affected by cognitive-estimative, motivational-emotional, sensory-discriminative characteristics, actually represents a priority objective of pain research. Pain measurement obtained through instrumental methods such as algometer, neurometer CPT evaluation (Passavanti M. B 2006), electromyography deal with this new diagnostic trend. As concerning the non instrumental methods of pelvic pain assessment we support the construction validity, the content validity, the test-retest reliability, the responsiveness, the easiness of administration, the comprehensibility to be some essential requirements


