DOLOR 2007;22:110-1

Diferencias en la percepción y evolución del dolor ocasionadas por la edad. Distintas situaciones clínicas

G. Pickering

Pain is a major healthcare problem worldwide and adults of advanced age represent an expanding proportion of the population with pain complaints. Epidemiologic studies show a very high prevalence of persistent pain, often exceeding 50% of community-dwelling older persons and up to 80% of nursing home residents.

While acute pain remains approximately similar across different age groups, persistent pain in contrast increases in prevalence until at least the 7th decade of life and then shows a plateau or slight decline into very advanced age. Pain, especially when acute, often reveals with an atypical presentation in older adults and is characterised by an absence of pain as a symptom or a reduction in self-reported pain intensity, for example in cholecystitis, ulcer disease, peritonitis, myocardial infarct, angina, intestinal obstruction or pneumonia. This atypical presentation places the older person at a greater risk of undiagnosed disease because of under or late reporting of pain. As a result, the risk of complications is greater and consequences of absent visceral pain include a higher mortality rate. Likewise, elderly patients are less likely to report cancer pain than younger patients and age affects the prevalence and severity of cancer pain symptoms. Concerning post-operative pain, not all, but most publications agree on a correlation between age and decreased pain reports: these differences between studies are probably due to methodological differences including age groups, medications and the type of pain scale used. Anatomical, physiological and biochemical studies have reported a loss of both myelinated and unmyelinated nerve fibres with age and a differential age-related alteration in Aδ versus C fibre-mediated pain perception with a consequent impairment of Aδ fibres. A number of neurophysiological changes have been observed with age at the level of the dorsal horn of the spinal cord and in supraspinal locations that could explain altered pain transmission. These changes include decreased levels of neurotransmitters, of their synthesis and processing, and a decline of the expression and of the density of receptors in central nervous system structures.

The age-related increase in chronic pain prevalence is obviously linked to the poly-pathologies associated with old age: musculoskeletal disease, osteoarthritis, chronic joint symptoms, low back pain, are extraordinarily frequent among older patients and account for very disabling conditions. Epidemiological, human and animal studies have recorded that the prevalence of pain peaks around middle age and decreases thereafter, not only in terms of overall pain complaints but also regarding specific pathologies. This decreased pain prevalence during very advanced age is linked to an array of factors, including cognitive alterations that may range from mild to severe cognitive impairment like in neurodegenerative diseases, and psychological factors with stoicism and dismissal of pain as a normal part of the aging process. In addition, the prevalence of pain that interferes with everyday life increases incrementally with age probably because osteoarthritis dominates the pain pattern in older adults (frequency of pain associated with osteoarthritis and chronic back pain is daily in 44% over 65 years old) and because comorbidity

Clinical Pharmacology Department
INSERM CIC 501, UA 766
Medical Faculty University Hospital
Clermont-Ferrand, France

Dirección para correspondencia:
Gisèle Pickering
Clinical Pharmacology Department
INSERM CIC 501, UA 766
Medical Faculty University Hospital
Clermont-Ferrand, France
E-mail: gisele.pickering@u-clermont1.fr

amplifies the level of restriction. There is definitely a high incidence of persistent pain in older persons, especially neuropathic pain: disease states such as herpes zoster are more prevalent in senescent individuals and the older patient is more at risk for postherpetic neuralgia with possible long-standing, severe and often disabling pain (for at least one year in 50% of patients over 70 years old). There is accumulating evidence to show that endogenous pain inhibitory mechanisms may decline with age and that mechanisms of central sensitization take longer to resolve in older persons. Consequences of chronic pain are numerous including sleep disturbances, impaired ambulation, decreased socialization in a frequent context of widowhood and social isolation, and adverse events from multiple drug prescription.

The evidence of studies on age differences in clinical pain presentation suggests therefore a dichotomy between acute and chronic pain states as well as a non-linear evolution of pain with age. Aging of the peripheral and central nervous system, impairment of the medial pain system, alterations of the cognitive-emotional domain, changes in synaptic plasticity involved in memory and in pain sensitization are all involved in the blunting or on the contrary in the exacerbation of pain in the very heterogeneous older segments of the population.