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ACETAMINOPHEN, A REASONABLE OPTION, BUT NOT A PANACEA

We read with interest the Editorial by Hilmer and MacPherson,[1] entitled "Effects of food on pharmacokinetics of immediate release oral formulations of simple analgesics: potential implications for drug use, safety and efficacy", published in *British Journal of Clinical Pharmacology*. They praised the work by Moore and colleagues,[2] which provides exciting pharmacokinetic data in showing better analgesic efficacy of paracetamol, nonsteroidal, anti-inflammatory drugs (NSAIDs) and aspirin when taken in the fasting state rather than with food. Moreover, Hilmer and MacPherson believe that the reported shorter time to maximum concentration and a higher maximum plasma concentration in the fasted than in the fed state highlights that this pharmacokinetic profile produces better early pain relief, better overall pain relief, longer lasting pain relief and lower rates of remedication in acute pain.[1] They further believe that results of the study by Moore and colleagues could also be applied to analgesia for older adults. Hilmer and MacPherson opined, "In this patient group, NSAIDs are rarely tolerated due to their gastrointestinal, renal and cardiovascular effects. However, optimal use of paracetamol is vital to minimize exposure of older patients to opioids in treatment of acute and chronic pain. This is particularly important because older adults are very vulnerable to the side effects of opioids."[1]

We agree with Hilmer and MacPherson that optimization of pain control in the elderly is important. We also agree with their point of view that NSAIDs are rarely tolerated related to multiorgan risk. However, we do believe Hilmer and MacPherson may have exaggerated the analgesic power of acetaminophen. Acetaminophen is one option for analgesia in the elderly, but it is not a panacea.

Chronic pain is pervasive in the elderly and the treatment of chronic pain in the elderly is largely inadequate.[3,4] A previous study published in JAMA concluded that 40 percent of the 2.2 million nursing home residents in this country live with "moderate" to "excruciating" pain daily, which is not treated for as long as six months after being reported.[5] The prevalence and burden of chronic pain is large and still growing. Older adults make up a large portion of the population with chronic pain, and their presentation, diagnosis, and treatment tends to be more complicated because of age-related physiological changes and comorbidities. If acetaminophen were as miraculous and effective as Himler and MacPherson proposed, then we would not be dealing with a chronic pain crisis we are facing today, as acetaminophen is available everywhere without needing prescriptions.

Oscar A. de Leon-Casasola[6] contends that, for older adults at higher risk for NSAID-related adverse effects, opioids are recommended instead, although opioids are not appropriate for all patients.

The American Geriatric Society updated its clinical practice guidelines in 2009 and placed opioids as a second-line choice for pain management after paracetamol, and stated that "all patients with moderate to severe pain, pain-related functional impairment, or diminished quality of life related to pain should be considered for opioid therapy."[7]

Recently, a report published in JAMA Internal Medicine,[8] described a healthy 88 year old lady, Alice, who presented to hospital initially with neck pain (resolved) and subsequently with knee pain, that was prescribed cyclobenzaprine on both occasions for her pain complaints. After being admitted to hospital for gouty arthritis of the knee, Alice died of medical complications presumably caused by polypharmacy, following 48 days extensive treatment in hospital and rehabilitation facility. It seemed that opioid had not been offered to Alice for treating her knee pain. We speculate that had Alice been given the chance for a judicious opioid trial for her severe knee pain prior to her hospital admission, the outcome would have been different.

Lastly, we would like to emphasize the importance of individualized pharmacotherapeutic approach in treating patients with chronic pain. Pain management is not a cookbook medicine. In daily clinical practice, we have seen cases when patients could not tolerate opioid therapy, either young or old; instances when patients could not tolerate nonopioid medications, such as gabapentin, pregabalin, cyclobenzaprine, tizantidine, or any antihistamines,

etc., either young or old. We have also seen patients, regardless of age, tolerate their opioid medications without any problems. This is simply because different patients are different individuals; therefore, an individualized approach is the best approach.

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