Pain: Sweet As Honey!

Pain is a great challenge for human beings throughout life and "pain treatment is a human right" (1-3). As long as human has experienced pain, he has been seeking pain medications. However, his efforts have not always been promising. Usually, pain suppressing medications either could not fully suppress pain or have side effects; drug dependency and pharmacologic tolerance are among the important side effects (4).

Improvements in cellular and molecular approaches have enabled us to assess the underlying mechanisms of pain and pharmacological tolerance. Opioid tolerance is among the most unwanted side effects of opioid analgesics.

Oxidative stress has been mentioned as an important factor in the development of morphine tolerance both through the destruction of cell defense systems and potential neuronal damages (5). Several materials including pharmaceutical agents have been used to counteract the stress response.

In the current issue of the Journal, Zakaria et al. have published their in vivo study, assessing the "effect of Apis dorsata Honey against Morphine Tolerance" and demonstrated "therapeutic role of A. dorsata honey in preventing morphine tolerance via inhibition of oxidative stress". They demonstrated that Apis dorsata Honey affected pain tolerance of the Sprague Dawley male rats and the level of lipid peroxidation marker, Malondialdehyde, and iNOS level in morphine-tolerant rats' thalamus, spinal cord, and hippocampus with potential neuroprotective effects (5).

Pain is a challenge, not only for physicians, nurses, and pharmacists but also for mankind. As long as life goes on, we have no choice but to find solutions to solve it, and as long as we are looking for a solution to treat pain, we have no choice but to use all the options ahead, and without a doubt, cellular and molecular mechanisms are one of the most important options.

References

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