

## Changing Paradigms in Understanding Pain: The Role of Networks, Genomics and Proteomics

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Dear Sir,

As we all know pain is a subjective phenomena and apart from its effect on our physiological systems of body, it affects our brain and hence our emotional components too. Hence, the treatment becomes multidimensional and at the same time sometimes difficult to treat. Multidisciplinary team approach becomes the need. We have evolved from a simple conventional pharmacotherapy to new drugs to interventional procedures, cognitive and behavioral therapy, psychological counseling and other modalities and so on. But still the question is; is it the end and have we really succeeded in eradicating chronic pain? What next and what more can be done?

I really appreciate the editor to take this thinking from this level to a deeper level. There is a hope for the future by his concise yet informative knowledge regarding genomics and proteomics. I would like to further add on the other future aspect of pain management: the biomarkers of pain and functional MRI. Biomarkers of pain

will not only help in the diagnosis but also help in keeping a track of disease progression and prognostication, stratification of the patient's treatment. It will also help in the development of new class of drugs that will not only relieve patient's symptoms but will also inherit disease modifying properties. Distinct neuropathic somatosensory phenotypes are emerging.

Functional MRI by detecting small changes in regional blood flow gives an indirect measure of neuronal activity. Even brain's morphological changes can be measured for certain chronic pain conditions by voxel-based morphometry.

Since the pain physiology and pain pathways are very complex and still not understood fully, we are still getting to know it. Pain management can be taken a further step more into the molecular level of genomics, biomarkers and imaging-based biomarkers that might give us a promising results in the future and looking forward for some good research trials and studies in this respect.

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