

**Letters to the Editor**

## **e** Using Pulsed Radiofrequency Ablation to Treat Pain Associated with a Tumor Involving the Brachial Plexus: A Molecular Mechanism

### **TO THE EDITOR:**

I read with great interest an article that was written by Rana and Matchett. This article was published in a recent issue and was about a practice pearl (1). The authors used radiofrequency for relief of pain and reported that the Radiofrequency can be a new treatment option. I would like to complete the discussion of Rana and Matchett by introducing a major complementary route by which radiofrequency could reduce tumoral pain.

The exact pathogenesis of cancer pain is largely obscure. Several causes such as mass pressure effect or neurogenic inflammation may induce pain. There is a growing body of evidence that Calcitonin gene related peptide (CGRP) and substance P play an essential role in transmission of neurogenic inflammation and

pain (2, 3). Also, Interleukins not only play an important role as inflammatory mediators but also interact with CGRP and substance P. Radiofrequency not only suppress CGRP but also, can decrease interleukin 1 (4, 5). Therefore, I suggest that radiofrequency ablation acts to inhibit neuropeptides and cytokine leading to attenuated cancer pain.

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