CANNABINOIDS FOR MANAGEMENT OF CHRONIC PAIN- OUR FIRST HAND EXPERIENCE

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INTRODUCTION:

Chronic pain is notoriously difficult to treat placing a significant stress on resources. Cannabinoids have been long used for treatment for pain evidenced in ancient Israel for labour pain, as analgesia in Asia during middle ages and in 1800s in West. However, due to ethical and health issues, its use had declined until the late 1980s rejuvenated interest in cannabinoid receptors and their effect on pain.

CASE STUDY:

We discuss the case of 43-year gentleman sent to the pain clinic following persisting pain for 7 weeks following thoracotomy for empyema. Described as ‘shooting pain’, non-radiating, 7-8/10 in severity. Initial treatment with paracetamol, codeine and NSAID provided little benefit. Subsequent addition of oramorph, oxynorm followed by addition of amitryptilline and tramadol provided little benefit. Patient was quite distressed with quality of life and side effects of polypharmacy. Due to suboptimal pain control, we decided to give a trial with synthetic cannabinoid. After reviewing existing literature, we decided to use nabilone. We started with 0.5mg BD titrated to 1 mg BD over a period of 2 weeks. Patient reported much better pain relief after 2nd week with pain score 3-4/10 and not needing breakthrough analgesia after 3rd week. Reported dry mouth and light-headedness for first 2 weeks that subsequently decreased. Subsequent follow up at 3 months and 6 months where patient reported minimal pain with occasional dry mouth. Currently on paracetamol, amitryptilline and nabilone. All investigations throughout were normal.

DISCUSSION:

Cannabinoids work via CB1 and CB2 receptors that are GPCR-G protein coupled receptors working via alteration of neurotransmission by inhibition of P/Q type Ca++ channels, adenylate cyclase and excitation of K+ channels. CB1 receptors are found in PAG, DRG and thalamus in brain, spinal cord and peripheral nerve endings. Side effects- tiredness, drowsiness and dry mouth. It is advisable not to drive during initial treatment. Currently there is not much evidence about long-term cognitive function. In our case it was not clear about exact mechanism of whether due to effect on peripheral nerve endings or due to central remodelling. This was our first opportunity to do extensive study about cannabinoids in respect to their mechanism of action, side effects and use. In future we would like to conduct larger studies over longer period of time in different patient groups to identify the patient groups likely to benefit and more knowledge of its effects and long and short-term side effects.

References:

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