

Successful use of pregabalin by the rectal route to treat chronic neuropathic pain in a patient with complete intestinal failure.

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Introduction

- This is the first reported case of using pregabalin by the rectal route for treatment of chronic neuropathic pain with complete intestinal failure
- A variety of therapies trialled were ineffective
- A trial of pregabalin administered per rectum (PR), was started
- Serum levels were measured to assess absorption
- Within a few weeks of starting the treatment, the patient had improved pain control and appeared more comfortable and calm

Case Presentation

70 year old gentleman, with a two year history of subacute bowel obstruction caused by thickened mesentery of uncertain origin, presented with dysphagia

He had been TPN dependent for the past two years since developing total gut failure

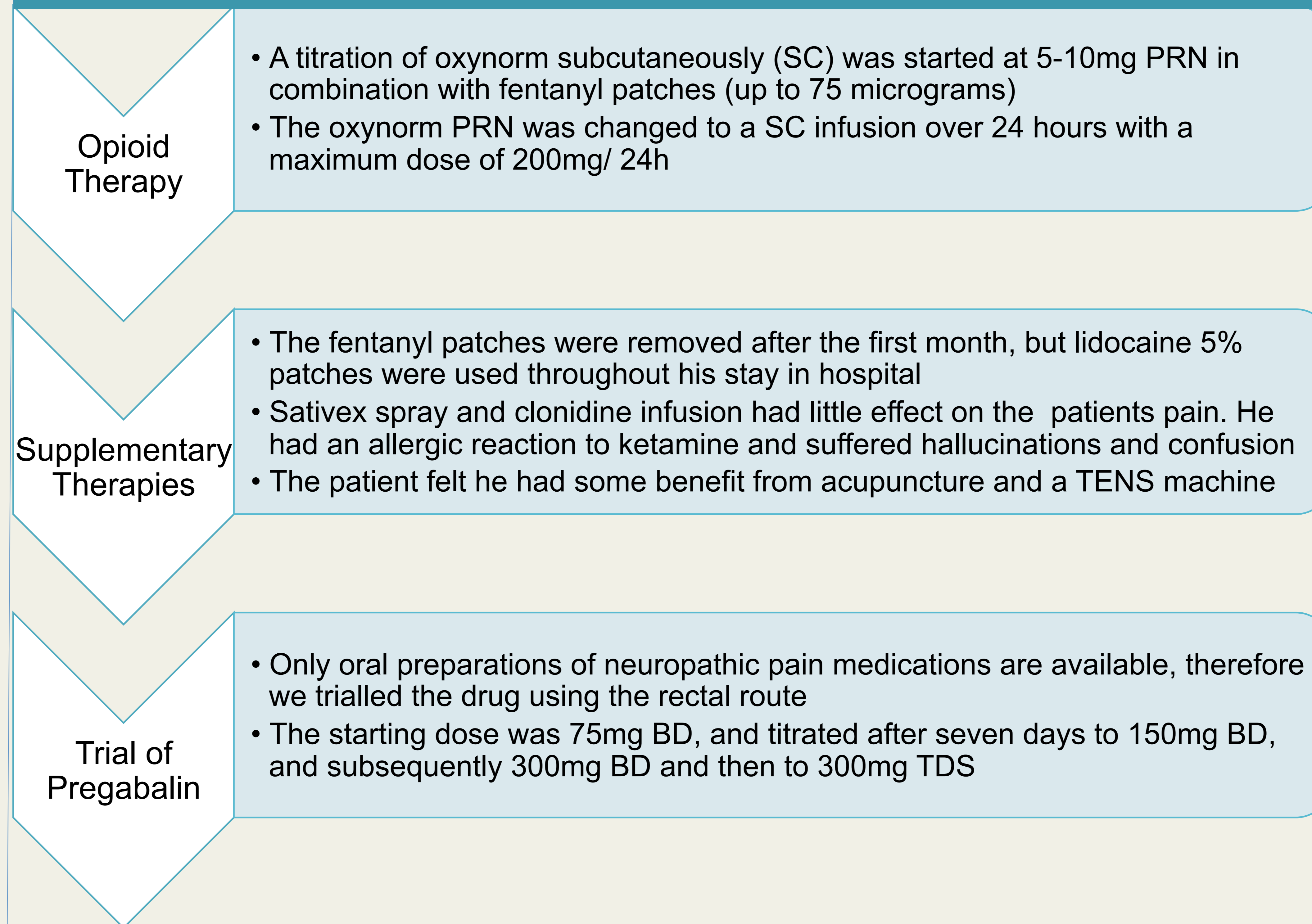
History of chronic pain and on admission was taking paracetamol (1g QDS), oxycodone MR 80mg BD, plus a 75 microgram fentanyl patch

Admitted to the intensive care unit (ICU) with sepsis and aspiration pneumonia

The pain was scored at a 2-3/3 (moderate to severe) and described as a sharp, shooting pain in buttocks and both legs with radiation in to the abdomen

He remained in ICU for up to 200 days due to an inability to wean from ventialtor before he unfortunately passed away

Treatment



Results

To assess absorption of the drug, blood samples were taken to record the level of pregabalin entering the circulation. The dose was adjusted accordingly and the patient's pain score recorded. By week ten of taking pregabalin, the patient had also reduced his use of PRN oxynorm.

Week of trial	Dose	Serum Levels	Patient Pain Score
3	150mg BD	<1mg/L (Range 2-8mg/L)	1/3
7	300mg BD	2mg/L	0-1/3
10	300mg TDS	3mg/L	0-1/3

Discussion

- Neuropathic pain is defined as "pain arising as a direct consequence of a lesion or disease affecting the somatosensory system"³
- NICE recommends one of: pregabalin, amitriptyline, duloxetine or gabapentin for the management of all neuropathic pain excluding trigeminal neuralgia¹
- Of the drugs recommended by NICE for neuropathic pain management¹, pregabalin was chosen because of its predictable, linear pharmacokinetics and dosing regimen²
- The rectal route was used because of this gentleman's total gut failure, and that he had been assessed as unsafe to swallow
- Enteral preparations of neuropathic pain medication are not available

Learning Points

- Chronic neuropathic pain can be very difficult to manage
- The rectal route for pregabalin can be considered in patients with total gut failure
- If using a drug in a novel way, serum levels should be measured to assess absorption
- Before trialling alternative routes, other medication options should be explored
- Neuropathic medications should be used in conjunction with nociceptive pain management in cases of mixed chronic pain

References

1. National Institute for Health and Care Excellence (NICE). *Neuropathic pain – pharmacological management: the pharmacological management of neuropathic pain in adults in non-specialist settings*. [Online] 2013. Available at: <http://guidance.nice.org.uk/CG173>. Accessed June 30, 2014.
2. Dworkin RH, O'Connor AB, Backonja M, Farrar JT, Finnerup NB, Jensen TS et al. *Pharmacologic management of neuropathic pain: Evidence-based recommendations*. Pain. 2007 Aug 23;132:237-251.
3. Treede RD, Jensen TS, Campbell JN, Cruccu G, Dostrovsky JO, Griffin JW et al. *Redefinition of neuropathic pain and a grading system for clinical use: consensus statement on clinical research and diagnostic criteria*. Neurology. 2008;70:1630-5.