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Case Report

Chronic low back pain in a patient with schizoaffective disorder and a remote history of substance abuse: A case report

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Abstract

The co-occurrence of chronic low back pain and severe psychiatric disorders presents significant diagnostic and therapeutic challenges in inpatient psychiatric settings. This case report describes a 58-year-old man with long-standing schizoaffective disorder, chronic low back pain due to degenerative lumbar spine changes, and a remote history of substance use, admitted for acute exacerbation of depressive and psychotic symptoms. Despite repeated adjustments to opioid-based analgesic therapy following pain consultations, pain relief remained limited and transient; neuroimaging revealed only moderate degenerative changes without nerve root compression. Although the patient engaged consistently in psychotherapeutic interventions and achieved psychiatric stabilization, pain-focused psychological interventions, such as structured pain-coping strategies, were not systematically implemented, and his pain remained persistent, continuing to impede functional recovery. This case illustrates the limitations of predominantly pharmacological pain management in patients with complex psychiatric comorbidity and underscores the importance of early interdisciplinary assessment and structured, pain-focused psychological interventions within psychiatric inpatient care.

Keywords: Chronic low back pain, Schizoaffective disorder, Multimodal pain management, Psychiatric comorbidity, Opioids

Introduction

History

A 58-year-old man who presented to the psychiatric inpatient unit in January 2025 due to an acute worsening of his psychiatric symptoms. This hospitalization represents his twelfth inpatient stay, as he has required repeated treatment for a chronic schizoaffective disorder with psychotic symptoms, particularly hallucinations, and recurrent severe depressive episodes. He again required inpatient stabilization following a deterioration of his mental health, consistent with the chronic and recurrent course of his illness.

In addition to his psychiatric conditions, his medical history is defined by chronic low back pain, attributable to degenerative changes of the lumbar spine, including spondylosis deformans. These symptoms have persisted for several years and have progressively developed into a chronic pain condition, which occurs particularly during prolonged movement or physical exertion. His reports increasing restrictions in mobility and stiffness in the lumbar region, resulting in substantial functional impairment. Furthermore, his chronic low back pain negatively affects his sleep and overall quality of life.

He reports a history of alcohol and substance abuse; specific substances and duration of use were not further explored in this assessment. He states that he has been abstinent for more than ten years. While detailed information about the previously abused substances is lacking, his reports that alcohol abuse and related psychological stress have contributed to the complex psychosocial difficulties he has experienced. He also has a history of hypertension, which

is treated with ramipril, and a past nicotine dependence, which he successfully overcame in 2014.

He is currently unable to work due to disability and receives a disability pension. He reports having remained employed until 2013, at which point his psychiatric illness and chronic low back pain, both of which must have already been present beforehand, ultimately prevented him from continuing to work.

Case Presentation

Clinical assessment

The patient was in generally good physical condition with normal nutritional status. Heart sounds were clear and rhythmic, and vesicular breath sounds were present bilaterally. The physical examination revealed no abnormalities and the neurological examination was unremarkable. The patient's vegetative history was unremarkable, except for complaints of sleep disturbances. He was oriented in all spheres with slightly reduced concentration and memory. His mood was severely depressed both subjectively and objectively, with reduced affective responsiveness and psychomotor slowing. He expressed a desire for rest but denied intentional suicidal ideation.

Diagnosis

He was diagnosed with a schizoaffective disorder, depressive type (ICD-10: F25.1). This diagnosis was made based on the simultaneous presence of depressive symptoms and psychotic features. He exhibited a pronounced depressive symptomatology, characterized by loss of drive, flattened affect, and a pervasive sense of hopelessness. At the same time, he reported auditory hallucinations, including voices urging him to take his own life. Despite the presence of commanding auditory hallucinations, he was consistently able to credibly distance himself from any intention to act on suicidal commands. He met criteria for other reactions to severe stress (ICD-10: F43.8), which were linked to a complex childhood trauma and the loss of his long-term partner in 2009.

He also has a history of alcohol and substance abuse but did not specify the duration or which substances were involved. He reports abstinence for more than ten years. He states that alcohol abuse and the associated psychological stress, the nature of which was not further specified, likely contributed to the development and maintenance of his mental health difficulties.

Therapeutic approach and outcomes

He began treatment with tilidine 50 mg extended-release (1-0-1-0) on the day of admission. After eight weeks, a Magnetic Resonance Imaging (MRI) of the lumbar spine was performed due to the severity of his chronic low back pain. It revealed moderate degenerative changes without evidence of focal disc herniation or nerve root compression. Tilidine treatment was continued for a further 18 days, with the aim of managing his chronic low back pain. During this period, he continued to report persistent chronic low back pain and resulting functional impairment despite the administration of tilidine. In addition to pharmacological treatment, he received psychoeducation regarding chronic pain mechanisms and coping strategies. He also participated in regular psychotherapy sessions and was instructed in Progressive Muscle Relaxation (PMR) as a non-pharmacological pain management technique.

Following a pain consultation a few days later, his analgesic regimen was switched to Palexia (tapentadol) 50 mg extended-release (1-0-1-0). The consultation additionally recommended metamizole (30 drops four times daily), initiation of physiotherapy, and continued use of transcutaneous electrical nerve stimulation. After the medication change, he reported no reduction in pain, and the chronic low back pain remained distressing.

After a week the Palexia (tapentadol) dose was increased to 2-0-1-0, and six days later was further increased to 2-0-2-0 in an attempt to improve pain control. Despite these adjustments, he continued to experience painful exacerbations of his chronic low back pain, particularly during physical exertion or extended movement.

A second pain consultation was conducted two weeks later. At that time, he continued to experience radiating, pulling pain in the lumbar region extending into the left knee, which he described as particularly burdensome. As Palexia (tapentadol) provided minimal analgesic effect, treatment was switched to a fentanyl 25 µg transdermal patch after a week, to be replaced every three days. Initially, he reported slight improvement, but after several days, he developed cutaneous reactions at the patch site, including itching and

rash. Metamizole was initiated at 30 drops four times daily, and Palexia (tapentadol) extended-release 100 mg (1-0-1-0) was added to enhance pain control. As metamizole did not provide any noticeable pain relief, it was discontinued after a few days. Throughout hospitalization, non-pharmacological strategies (psychotherapy, psychoeducation, PMR, and physiotherapy) were continued as part of a multimodal treatment approach. Two days before discharge, he was still using the fentanyl patch.

Although he experienced brief periods of reduced pain intensity, a sustained improvement of his chronic low back pain could not be achieved. The adjustments to his analgesic regimen described above provided intermittent relief, which allowed him to participate somewhat more actively in therapeutic activities. However, despite these temporary effects and despite managing the cutaneous side effects of the fentanyl patch-the overall level of pain remained largely persistent.

The combination of fentanyl, metamizole, and Palexia (tapentadol) contributed to partial symptomatic relief but did not result in a meaningful or stable reduction of his chronic low back pain. The limited functional benefit observed despite escalating analgesic therapy highlighted the challenges of managing chronic pain in the context of severe psychiatric comorbidity.

Following discharge, he moved to an animal-assisted supported housing setting, which he described as beneficial, as contact with animals subjectively helped him cope with stress and pain. He continued to be supported by his legally appointed guardian, who assisted with administrative and healthcare-related matters. In addition, outpatient psychosocial support was arranged. During the seven-month period following discharge, he remained in outpatient care, including psychiatric follow-up and continuation of his established treatment plan.

At seven-month follow-up, he reported doing well overall, suggesting sustained clinical stabilization within the context of continued multidisciplinary support in Table 1.

Table 1: Course of analgesic therapy.

Timepoint	Medication	Effect/Side effect
Admission	Tilidine 50 mg extended-release (1-0-1-0)	Persistent low back pain despite 8 weeks+a further 18 days of treatment
After 1st pain consultation	Palexia (tapentadol) 50 mg extended-release (1-0-1-0)	No pain reduction reported
+1 week	Palexia 50 mg increased to 2-0-1-0	Painful exacerbations persisted, especially during exertion
+6 days	Palexia increased to 2-0-2-0	Pain exacerbations persisted
After 2nd pain consultation (+2 weeks)	Switch to fentanyl 25 µg transdermal patch (every 3 days)	Initial slight improvement, then cutaneous reactions (itching, rash) at the patch site
After a few days	Metamizole 30 drops 4x/day+Palexia extended-release 100 mg (1-0-1-0) added	Metamizole showed no effect, discontinued after a few days

Discussion

The present case illustrates the complex interaction between chronic low back pain and a pronounced schizoaffective disorder in a patient with a long-standing history of psychosocial burden. Although the multimodal treatment offered during his inpatient stay addressed several domains, the management of his chronic pain showed clear limitations. While the patient regularly attended weekly psychological sessions, these primarily focused on his hallucinations, affective instability, anxiety, social stressors, and the establishment of a therapeutic alliance. His pain experience and individual pain-coping strategies, however, received less systematic attention. This is clinically relevant, as chronic pain and psychiatric symptoms are known to mutually reinforce one another, contributing to greater functional impairment and reduced responsiveness to pharmacological treatment [1]. At the same time, only few studies have specifically investigated chronic pain in patients with schizophrenia or schizoaffective disorder. Existing evidence suggests that pain in this population is often under recognized or insufficiently addressed in clinical care. A large cohort study found that patients with schizophrenia or schizoaffective disorder were less likely to receive chronic pain diagnoses compared to controls, despite substantial physical comorbidity [2]. The authors discuss that altered pain perception, reduced reporting of pain symptoms, communication difficulties, and under

diagnosis by healthcare providers may contribute to this finding. They further emphasize that pain experiences in schizophrenia-spectrum disorders may be "disturbed or distorted" rather than absent, highlighting the importance of systematic pain assessment in this population.

Current guidelines emphasize that chronic non-malignant low back pain requires a biopsychosocial and interdisciplinary treatment approach. According to the S3 guidelines for long-term use of opioids for chronic non-cancer pain, long-term opioid therapy should only be considered under strict indications, with clearly defined functional goals and regular re-evaluation [3]. Nevertheless, he was switched from tilidine to Palexia (tapentadol) and eventually to a fentanyl patch due to persistent pain despite dose escalation. While these medication adjustments were understandable given the severity of his persistent pain, they highlight the inherent difficulty of achieving sustainable improvement in chronic pain using pharmacological treatment alone.

More recent scientific work underscores the essential role of functional and psychological pain-management approaches in chronic low back pain. Cognitive Functional Therapy has shown significant improvements in pain intensity and functional capacity, with benefits persisting for more than 12 months [4]. Likewise, Cognitive-Behavioural Therapy (CBT) and mindfulness-based interventions have demonstrated effectiveness in reducing pain intensity, improving emotional regulation, and decreasing opioid use in opioid-treated chronic pain populations [5,6].

Although he participated in cognitive-behavioural therapy groups and attended psychological sessions-benefiting psychiatrically from both-these interventions were not designed as pain-focused CBT. While fear-avoidance patterns were addressed occasionally, there was no systematic therapeutic focus on pain-coping strategies, activity pacing, or functional rehabilitation-core components of CBT-based pain programs.

The lack of comprehensive, targeted pain-focused psychological interventions is particularly relevant in light of the chronicity of his condition, the degenerative spinal findings, and his functional limitations. Persistent protective behaviours, fear of movement, and reduced activity-common mechanisms in chronic low back pain-were not explicitly addressed through a structured functional pain-therapy approach, which likely limited functional improvement despite intensive pharmacological treatment. Evidence indicates that unaddressed maladaptive pain beliefs contribute to central sensitization, diminished responsiveness to analgesics, and the perpetuation of chronic pain cycles [7]. His clinical course-characterized by fluctuating and often only partial analgesic response, ongoing mobility restrictions, and recurrent pain exacerbations-fits this pattern of pain insufficiently integrated into psychological treatment.

It became evident that although he showed improved emotional stability after inpatient treatment and integrated well into the therapeutic programs, his chronic low back pain showed little change. The combination of improved psychiatric stability and persistent pain highlights the need for closely coordinated psychiatric and pain-management interventions. Current multiprofessional guidelines explicitly recommend incorporating physiotherapy, psychoeducation, psychological pain management, and self-management training early rather than primarily relying on medication adjustments [8]. For his further pain treatment, a reduction or discontinuation of analgesics and outpatient physiotherapy were recommended. Studies show that early multimodal interventions offer more sustainable benefits than late treatment attempts [9,10].

Conclusion

In summary, while he benefited psychiatrically from the regular psychological sessions and the structured therapeutic program, the chronic low back pain component of his condition remained insufficiently addressed from a modern evidence-based perspective. This case highlights the importance of a consistent, multimodal, guideline-oriented treatment pathway for patients with chronic low back pain and complex psychiatric comorbidity. This is particularly relevant for patients with schizoaffective disorder, as chronic pain in schizophrenia-spectrum disorders may be under recognized, insufficiently assessed, and therefore undertreated in clinical practice. More consistent implementation of such approaches could reduce the reliance on opioid therapy and promote long-term functional recovery.

Declaration of interests

The authors declare that they have no known competing financial interests or personal relationships that could have

appeared to influence the work reported in this paper.

The authors declare the following financial interests/ personal relationships which may be considered as potential competing interests.

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