Chronic Cannabis Use and Refractory Myofascial Pain in Adult Spinal Muscular Atrophy Type 2



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INTRODUCTION

Spinal muscular atrophy (SMA) type 2 is associated with scoliosis, restrictive lung disease, and chronic wheelchair dependence. Myofascial pain can be difficult to manage, particularly when respiratory compromise limits opioid therapy.[1] Although cannabis use for chronic pain is increasing, evidence for sustained analgesic benefit remains limited.[2]

METHODS

This case report is exempt from IRB review per UCI policy as it contains no identifiable patient information. Written informed consent for publication was obtained. Clinical information was obtained by retrospective chart review, including history, physical examination, imaging, and laboratory data.

CASE PRESENTATION

- 20-year-old man with SMA2; wheelchair-dependent since childhood
- Severe scoliosis, restrictive lung disease, moderate persistent asthma, and dysphoric mood
- Chronic left low-back, anterior rib, and scapular pain rated 8/10
- Pain worse at night, requiring repositioning approximately every 45 minutes with significant sleep disruption
- Exam demonstrated paraspinal tenderness, taut myofascial bands, severe scoliosis, and kyphotic posture
- Cannabis used twice daily: initial analgesic benefit followed by progressive worsening of pain despite continued use

PRIOR MANAGEMENT

- Minimal relief with acetaminophen and topical lidocaine
- Minimal relief with baclofen, methocarbamol, cyclobenzaprine, and tizanidine
- Opioid therapy deferred because of restrictive lung disease and risk of hypoventilation

IMAGING



Figure 1. Anteroposterior radiograph demonstrating severe neuromuscular scoliosis with marked thoracolumbar curvature, vertebral rotation, and rib-cage deformity.

CLINICAL COURSE & MANAGEMENT

Clinical Course	Management / Response
Initial presentation	8/10 left low back, anterior rib, and scapular myofascial pain with significant nighttime sleep disruption
Chronic cannabis use	Twice-daily cannabis use initially provided analgesic benefit, followed by diminishing benefit and progressive pain with continued use
Opioid-sparing interventions	Trigger point injections x2 and low-dose naltrexone were trialed; pain remained refractory
Persistent pain, mood & sleep symptoms	Amitriptyline (Elavil) initiated to address pain, sleep disturbance, and mood symptoms
Current management	Patient is currently attempting to wean cannabis; PM&R evaluation obtained as part of continued multidisciplinary management

DISCUSSION

This case highlights the complexity of chronic pain management in SMA2, particularly when restrictive lung disease limits opioid therapy. Despite trigger point injections and low-dose naltrexone, myofascial pain remained refractory. Cannabis initially provided analgesic benefit, but this diminished with continued use. Given evidence linking cannabis use with mood disturbance, chronic cannabis exposure may warrant reassessment in refractory pain.[3] Multidisciplinary management addressing pharmacologic, functional, psychological, and behavioral contributors remains essential to individualized, opioid-sparing care.

CONCLUSION

Refractory pain in SMA2 may reflect interacting musculoskeletal, respiratory, psychological, and treatment-related factors. When the analgesic benefit of cannabis diminishes, reassessing its role within a broader multidisciplinary treatment plan may support individualized, opioid-sparing care.

REFERENCES

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