

Background

About Grey Platelet Syndrome (GPS):

- Autosomal recessive mutation of *NBEAL2*
- “Grey” platelets due to a deficiency of α -granules
- Presents as thrombocytopenia, splenomegaly, and/or myelofibrosis
- Recommended treatment: supportive

Objective

This report investigates management options for a patient with chronic pain secondary to Grey Platelet Syndrome. In the absence of curative intervention, we discuss how long-term pain control is achieved and invite further exploration of alternative, sustainable pain management approaches.

Case Description

- 30s-year-old male with GPS
- 8-year history of chronic, diffuse 7/10 pain
 - Throbbing and aching
 - Worsens with exertion and cold
 - Accompanied by fatigue and weakness
- Frequency:
 - Originally, recurred a few times a week
 - Progressed to constant

Rare Grey Platelet Syndrome:

Investigating its Connection to Chronic Pain Development

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CT scan showing midline-shifting splenomegaly, likely a contributing factor to the patient's abdominal and back pain

Interventions

The timeline shows how the pain medication regimen for this patient has progressed since his initial evaluation and diagnosis.

Hydrocodone-acetaminophen and morphine have been the primary agents used for pain control in this patient.

He currently reports significant relief with increased morphine dosing.

Duloxetine and pregabalin may be considered for neurogenic pain control.

Year
0

Tramadol started
Hydrocodone-Acetaminophen started

Year
2

Tramadol discontinued
Gabapentin
→ No relief

Year
4

Extended-release Morphine added

Year
8

ER Morphine dosage increased
Immediate-release Morphine added
Acetaminophen
Diclofenac 1% added
Lidocaine patches added



Discussion & Conclusions

This case shows that diffuse pain can coincide with the onset of other characteristics of GPS.

Myelofibrosis and splenomegaly are likely etiologies for chronic pain.

The patient's pain is currently well controlled with daily opioid medications and topical analgesics.

Treatment options for patients with Grey Platelet Syndrome are limited, as is pain management, but current literature proposes stem cell transplant as a possible definitive treatment.

References

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