Background and Aims Fabry disease is an X-linked disorder caused by mutations in the GLA gene, leading to globotriaosylceramide (Gb3) accumulation on the lysosome. Patients experience numerous forms of pain, including evoked and chronic pain. The exact cause of the pain has yet to be entirely understood. Still, the peripheral nervous system, cardiac, renal, sensory, and autonomic ganglion cells are particularly affected by the deposits of Gb3.

Methods A bioinformatic analysis of likely genes related to and signaling pathways involved in the manifestation of pain in Fabry disease was performed. A literature review on possible physiopathogenesis of pain mechanisms was also carried out.

Results In the bioinformatic analysis, we identified through the DisGeNET database around 207 genes related to chronic pain, 266 genes in inflammatory pain, and 24 genes in peripheral neuropathic pain. The Venny 2.1 online platform was used to find common genes between these pathologies, identifying around 78 common genes. An interaction network was built on the STRING platform for these 78 genes. The pathways discovered through this analysis include inflammatory mediator regulation of TRP channels, the VEGF pathway, neuroinflammation, and the relationship between COX2 and EGFR. Among the principal explanations for the physiopathogenesis in the literature, the accumulation of Gb3 in the sacral plexus, the activation of the Notch 1 pathway, and the function of ion channels (KCa3.1 channels) are involved in the mechanism of initiation.

Conclusions This analysis aims to explain unresolved key pathophysiologic features of pain without discarding the possibility of additional genomics factors and providing future investigation opportunities.
requirements in the setting of lower extremity amputation. Therefore, it should be considered as part of a blood conservation strategy.

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Background and Aims Peri-operative pain is mostly managed pharmacologically. Evidence suggests 75% of patients feel anxious pre surgery, and 40-65% moderate to severe pain post-operatively, leading onto distress, dissatisfaction and prolonged hospital stay. Alternative cost effective modalities including music may help, with beneficial effects on stress responses and reduced medication requirements.

Methods PubMed, MBase, GoogleScholar searches

Results A recent meta-analysis evaluated RCT’s on effects of music intervention on anxiety and pain levels before and after surgery. Of the 92 RCT’s identified, 81 were included and found a significant reduction in all these measures. Individual preferences for certain music types and rhythm and harmony were noted. While evidence was compelling publication bias and heterogeneity were noted. Future study The IMPROVE study (Netherlands) aims to be the first study actively implementing music intervention in a colorectal surgical cohort. Qualitative methods assessing patients and professionals attitudes towards musical interventions, and a multifaceted strategy to optimise delivery of music, followed by evaluation of effects and experiences of the intervention, and adjustments that may need to be made is planned. The intervention includes pre, intra and post-operative targeted music with at two 30 minute sessions daily during the whole hospital stay and surgical procedure. Aims include providing a systematic framework on the implementation of music intervention in real clinical settings.

Conclusions A willingness to seek alternative, holistic, patient centred approaches to care and acknowledging the impact of calming distraction strategies, such as music in peri-operative care, that are also low in cost and harm is seen with both published and planned research.

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Background and Aims PAD induces severe and disabling pain with gradual functional impairment and progressive circulation disorder leading to gangrene. Affection of microcirculation rarely develops an effective compensatory mechanism and can’t be treated surgically. RA reduces pain and induces vasodilation, acting on sympathetic and sensitive nerve fibers. O3 therapy promotes nitric oxide release resulting in vasodilation, improves O2 delivery and activates mediators involved in endothelial regeneration. We hypothesized that the combination of RA and O3 could be effective for pain relief and reactivation of microcirculation.

Methods We treated 1 male patient(68y), with a critical, bilateral upper extremities PAD not amenable to revascularization surgery and with severe pain(NRS=10), poor responsive to drugs. Signs of chronic ischemia, including gangrene, were present. The last chance treatment was the amputation of both hands. We performed autohemotherapy(30 ml of blood + 30 ml of O2O3 blend at 40 mcg/ml of concentration) twice a week + digital nerve block with levobupivacaine 0,15% + subcutaneous infiltration of O2O3 at 10 mcg/ml.

Abstract #36337 Figure 1 Hands before treatment

Abstract #36337 Figure 2 Hands after treatment