DOI: 10.1111/1756-185X.14200

International Journal of Rheumatic Diseases WILEY

POSTER PRESENTATIONS

Advances in Pain Management

Buffered dextrose 5% – an alternative analgesia

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Background/Purpose: Chronic pain around neck and upper limbs (NUL) among patients with rheumatic and musculoskeletal disease (RMD) is challenging to handle. Dr John Lyftogt has established the use of buffered dextrose 5% with pH of 7.4 (BD5%) in Perineural injection therapy (PIT) to treat such condition with success.

Our primary objective is to assess pain score reduction (PSR) in Numerical Rating scale (NRS) after PIT in this region. Secondary objective is to assess percentage of patients who achieved at least 50% PSR at the end of treatment.

Methods: Patients with NUL pain who received PIT in 2019 and had followed up for 12 months were reviewed. PIT was performed by serial injection of BD5% along the superficial nerve(s) underneath the skin using 30G, 1cm hypodermic needle. Patients with pain score not recorded or still undergoing PIT were excluded. PSR before and after series of treatments were analysed using paired T test.

Results: 21 patients with NUL pain were treated with total of 61 PIT. Mean age was 58.1. 76.2% (n = 16) were female. 57.1% (n = 12) had shoulder tendinopathy with or without tear, 33.3% (n = 7) had fibromyalgia while 9.5% (n = 2) had cervical spondylosis.

Baseline pain score was 7.0 ± 1.4, duration of pain was 1.8 ± 1.6 years. Average 2.9 ± 1.5 times of PIT were performed. 19% (n = 4) had one PIT, 23% (n = 5) needed two while 29% (n = 6) needed three PIT. Distribution of cases according to number of PIT as shown in Figure 1.

Pain score reduced to 2.9 ± 1.7, 2.1 ± 1.4 and subsequently 1.4 ± 1.1 following first, second and third PIT. On average, PSR was 6.0 ± 2.2 (p = 0.0001). The effect lasted for 5.7 ± 4.2 months. No complications were observed.

100% of them demonstrated 50% or more PSR.

Conclusion: Buffered dextrose 5% in perineural injection therapy alleviates NUL pain significantly. This is a good and safe alternative treatment for RMD patients with NUL pain.

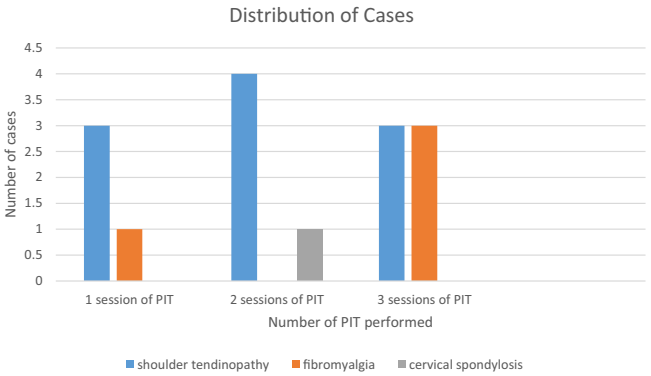

FIGURE 1 Distribution of cases according to number of PIT needed

Buffered dextrose 5% - the sweet solution for chronic low back pain

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Background/Purpose: Chronic low back pain (CLBP) is one of the constant struggle among patients with rheumatic and musculoskeletal disease (RMD). Dr John Lyftogt had used buffered dextrose 5% with pH of 7.4 (BD5%) via caudal epidural injection (CEI) to treat CLBP successfully.

Our primary objective is to assess pain score reduction (PSR) in Numerical Rating scale (NRS) after CEI. Secondary objective is to assess percentage of patients who achieved at least 50% PSR at the end of treatment.

Methods: Patients with CLBP who received CEI in 2019 and had followed up for 12 months were reviewed. CEI was performed by giving 10 mL of BD5% at caudal epidural region via 26G, 1cm needle. Patients with pain score not recorded or still undergoing CEI were excluded. PSR before and after series of treatments were analysed using paired T test.

Results: 35 patients received total of 127 CEI for CLBP. Mean age was 62.1 years and 80% (n = 28) were females. 80% (n = 28) had mechanical low back pain due to spondylosis, prolapsed intervertebral disc, spinal stenosis and spondylolisthesis. 14.3% (n = 5) had

between Bechet's Disease (BD) and relapsing polychondritis (RP). BD is an inflammatory disease characterized by recurrent oral aphthous ulcers, genital ulcers, pathergy, neurological, vascular manifestations. RP, an autoimmune disorder characterized by widespread, destructive, inflammatory lesions of cartilaginous structures, including ear, nose, larynx, trachea, bronchi, peripheral joints, eye, heart, and skin. Here we examine further the differences and similarities between these two syndromes and the clinical implication of MAGIC syndrome.

Methods: A 44-year-old Caucasian-gentlemen, with a history of RP, seen by a rheumatology clinic. Information gathered is through medical record review. He was diagnosed with BD at the age of 42. His BD was characterized with oral ulcers, polyarthritis, neurologic/vascular lesions. Neurological symptoms included gait difficulties, dizziness, seizure. Vascular lesions included peripheral artery aneurysms. There was no documented treatment in this patient's case. Case description limited by available information.

Results: Diagnosis is done using the International Criteria of Bechet's Disease (ICBD) which assigns 2-points each to ocular lesions and genital and oral aphthosis, 1-point to vascular, skin, and neurological manifestations and pathergy. A score of 4 or more is considered BD. Clinicians may see overlap of signs/symptoms with RP. Diagnostic criteria for RP include three or more of the following criteria: bilateral auricular chondritis, nonerosive seronegative inflammatory polyarthritis, nasal chondritis, ocular inflammation, respiratory tract chondritis, cochlear/vestibular dysfunction. It has been postulated that autoimmunity to certain collagen could be the common mechanism of both BD and RP.

Conclusion: Magic syndrome is thought to be an intermediate between BD and RP due to the overlaps of their features but there are still noted differences in their genetic predisposition and treatment. The relationship between these rare diseases requires further research as they have implications in diagnosis and treatment for these conditions.

IgG4-related disease, a case series from Sarawak Malaysia

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Background: IgG4-related disease (IgG4-RD) is a novel entity of disease first recognised in 2003. It has wide spectrum of clinical manifestations, virtually affecting any organ. It's epidemiology remain poorly described and treatment guideline still lacking.

Methods: We describe 7 IgG4RD cases diagnosed and treated in 2 hospitals with rheumatologist in Sarawak from 2015 till 2020.

Results: 4 males and 3 females were reported with age during diagnosis ranging from 34 to 74 years old. 4 patients had tumefactive lesions (lacrimal gland and salivary gland swelling), 2 had obstructive symptoms (obstructive uropathy due to retroperitoneal fibrosis, obstructive jaundice secondary to autoimmune pancreatitis) and 1 had renal failure and proteinuria as presenting symptoms. Time taken from onset of symptoms to diagnosis range from 8 months to 23 years. In all cases, histopathological findings were the prompt towards diagnosis of IgG4-RD. All patients fulfilled the ACR-EULAR classification criteria whereas only 3 met the 2010 JCR comprehensive diagnostic criteria, due to lack of IgG4 level in others. All patients showed rapid response to steroid therapy, complete resolution of salivary gland swelling were seen in 3 months, stent removal in those with obstructive symptoms were achieved in 6 months whereas resolution of proteinuria was seen in 2 months. All remained in remission currently with or without treatment. Initial dose of prednisolone used ranged from 0.2 to 0.6mg/kg/day, all with good effect.

Conclusion: IgG4-RD is indolent but often highly destructive. It is treatable and if diagnosed early, damage is potentially reversible. In terms of diagnosis, we feel that the ACR-EULAR classification criteria is more practical compared to the JCR criteria in places where resources are limited and laboratory testing of serum IgG4 level is not available. Good awareness and high index of suspicion among clinicians, radiologists and pathologists are thus essential in timely diagnosis and prompt treatment of IgG4-RD.

Avascular necrosis in rheumatology

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Background: Avascular necrosis (AVN) though not fatal, is a serious cause of morbidity for patients and its aetiology is multifactorial. This study aims to assess the pattern of AVN in Rheumatology.

Methods: A retrospective observational study was conducted in 9 patients diagnosed with AVN, with rheumatic diseases in Department of Rheumatology, Sri Ramachandra Institute of Higher Education and Research, Chennai from January 2018-December 2020.

Results: All patients were female and mean age was 23.3 years (14-33 years).The primary rheumatic disease was Systemic Lupus Erythematosus (SLE) in 7 (77.7%), Dermatomyositis (DM) in 1 (11.1%) and Overlap Syndrome in 1 (11.1%).71.4%(n = 5/7) had neuropsychiatric SLE (NPSLE). All patients presented with localising symptoms, after an average disease duration of 2 years (0.5-6 years).Average baseline SLEDAI 2K was 18.2 (12-24). The femoral head was the most common site of AVN in 77.7%(n = 7/9) followed by distal femur in 33.3%(n = 3/9). Multifocal AVN was seen in 22.2%(n = 2/9) and bone infarct in 11.1%(n = 1/9). Ficat Stage II was reported in 42.8%(n = 3/7), Stage III in 28.5%(n = 2/7), Stage