

WORLD CONGRESS ON RHEUMATIC HEART DISEASE

2-4 November 2023 • Abu Dhabi



Submission Id: 89

Title: COMPARISON OF PAIN SCALE USING LIDOCAINE AS A DILUENT VERSUS LIDOCAINE PLUS COUGHING TECHNIQUE DURING BENZATHINE PENICILLIN G ADMINISTRATION IN PEDIATRIC PATIENTS WITH RHEUMATIC FEVER AND RHEUMATIC HEART DISEASE

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Background & Aims: Benzathine penicillin G as secondary prophylaxis is proven effective method in the prevention of progression of rheumatic fever and rheumatic heart disease. Caveat to this is pain associated with injection experienced, after which fear of succeeding injection limits patients' adherence. This study aims to compare the pain scale of lidocaine as diluent versus lidocaine plus coughing technique during benzathine penicillin G administration in patients with rheumatic fever and rheumatic heart disease.

Methods: Randomized single-blind, crossover study, total of 47 rheumatic fever and rheumatic heart disease patients aged 10-18 years old receiving benzathine penicillin G injection every 21/28 days in Mariano Marcos Memorial Hospital and Medical Center out-patient department were divided into three groups for three visits. First group received benzathine penicillin G diluted with sterile water followed by benzathine penicillin G diluted with 4ml lidocaine hydrochloride 1% followed by benzathine penicillin G diluted with 4ml lidocaine hydrochloride 1% plus coughing technique. Reverse order for second and third group. Pain scale was measured using Wong Baker pain scale right after injection.

Results: Overall, there was significant reduction pain scale of patients who received lidocaine as diluent plus coughing technique with pain scale: 0 (interquartile range: 0-1). There is a statistically significant difference between intervention and pain scale with p-value: 0.000*.

Conclusions: Lidocaine hydrochloride 1% as benzathine penicillin G diluent and coughing technique significantly reduces pain. Benzathine penicillin G with lidocaine hydrochloride 1% with cough technique should be used in patients with rheumatic fever and rheumatic heart disease to decrease injection pain, improve adherence and outcome.