

Comparison of High Sensitivity C -Reactive Protein Levels Among Acute and Chronic Lower Back Pain Patients Undergoing Lumbar Discectomy

ND Withanage^{1*}, H Peiris ², S Perera ³, P Dias ⁴, LV Athiththan ²

¹Department of Allied Health Sciences, Faculty of Medical Sciences, University of Sri Jayewardenepura, ²Department of Biochemistry, Faculty of Medical Sciences, University of Sri Jayewardenepura, ³The Central Hospital, Colombo 8, ⁴Department of Statistics, Faculty of Applied Sciences, University of Sri Jayewardenepura
withanagend@sjp.ac.lk

Background: Lumbar disc herniation (LDH) gives rise to low grade inflammation around the herniated discs. Level of high sensitivity C-reactive protein (hs-CRP) may associate with the severity of lower back pain.

Objective: To identify the association between hs-CRP levels and acute back pain (ABP) and chronic back pain (CBP) in patients undergoing lumbar discectomy.

Methods: A serum aliquot of 200 µL from each patient (n=104) undergoing lumbar discectomy was analyzed for hs-CRP using immunoturbidometric assay.

Results and Discussion: Majority (81.7 %) presented with CBP (males=44; females=41) while 18.4 % had ABP (males=10; females=9). In both CBP and ABP groups, age ranged from 18-79 years. Even though a significant difference ($p=0.211$) was not observed in mean hs-CRP, CBP patients had (4.6 ± 8.4 mg/L) elevated hs-CRP compared to ABP (2.1 ± 2.5 mg/L). There were 32.9 % CBP patients with elevated hs-CRP (>3 mg/L). Studies have reported that hs-CRP in CBP remains constant with no correlation to the pain. However, 5/19 ABP patients had elevated hs-CRP (>3 mg/L) levels.

Conclusion: High hs-CRP level in patients with CBP might be suggestive of low grade inflammation around the herniated disc and the necessity for anti-inflammatory treatments in CBP.

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