

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

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**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  $\mu$ L 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 ( $4.6\pm 8.4$  mg/L) elevated hs-CRP compared to ABP ( $2.1\pm 2.5$  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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