PREVALENCE OF VITAMIN D DEFICIENCY IN PATIENTS WITH LUMBAR DISC HERNIATION

INTRODUCTION:
- Lumbar disc herniation remains the commonest cause of a lower back ache (1-3%) , potentially leading to a radiculopathy.
- The balance between the nutritional supply and excretion of waste products is very sensitive to the environment surrounding the disc.
- The property of vitamin D to downregulate pro inflammatory cytokines and upregulate anti-inflammatory cytokines is important in inhibition of disc degeneration and subsequent disc prolapse.

OBJECTIVE:
- The aim of this study is to evaluate prevalence of Vitamin D3 deficiency in patients with prolapsed lumbar intervertebral disc and any other associates risk factors

RESULTS:
- Out of these 100 patients enrolled in our study, 79% were vitamin D deficient.
- Females had generally lower levels of vitamin D3 (81.9%) as compared to males (71.4%).
- Low vitamin D levels were prevalent in all age groups, severe deficiency (<10ng/ml) more prevalent in the older age groups (p value= 0.004)
- Deficiency was seen in 95.2% of patients with mild pain, 67.5% with moderate pain, 80% with severe and 82.3% with severe to worst possible pain on visual Analog pain score.
- Comparing the BMI with the vitamin D levels, 50% of the underweight patients showed deficiency, 75% of normal weighted individuals, 78.7% of overweight and 83.3% of obese patients had low vitamin levels.

CONCLUSION:
- Vitamin D is a global health concern and can lead to variety of degenerative diseases, specially lumbar disc herniation. It is more prevalent in females, in the older age group and in those being overweight or obese. It does not show any linear correlation with the severity of pain.

METHODS/DESIGN:
- Prospective study from April 2018 till June 2019 with of 100 patients with proven herniated lumbar disc were checked for serum 25-Hydroxyvitamin D levels. Other demographics such as gender, age, BMI as well as Visual Analog pain score on presentation were also compared with Vitamin D levels.