**Original article:**

**A morphometric study of the Pedicles of dry human typical lumbar vertebrae   
Dhaval K. Patil1\* , Pritha S. Bhuiyan2**1Resident, Department of Anatomy, Seth G S Medical College, Parel, Mumbai-400012, Maharashtra, India

2Professor and HOD, Department of Anatomy, Seth G S Medical College, Parel, Mumbai-400012, Maharashtra, India

Corresponding author: Dr Dhaval K. Patil

**Date of submission: 21 May 2014; Date of Publication: 29 June 2014**

**ABSTRACT:**

**Introduction:** Pedicle screws are used with an increasing frequency for fixation in spinal fractures and degenerative spinal disorders. Hence the need for adequate anatomical knowledge of vertebral pedicles is imperative. The study aimed at measuring the various dimensions of pedicles in typical lumbar vertebrae.

**Material and methods:** Two hundred dry human typical lumbar vertebrae of undetermined gender and age were selected for the study. The various parameters of pedicles were measured.

**Results:** The mean pedicle width at the midpoint of the pedicle on the left side was 8.57 ± 1.69 mm and on the right side was 8.41 ± 1.62mm. The mean pedicle height at the midpoint of the pedicle on the left side was of 13.9 ± 1.39 mm and on the right side was 13.96 ± 1.34 mm. The mean transverse pedicle angle on the left side was 11.67 ± 4.09 degrees and on the right side was 11.79 ± 4.03 degrees. The mean sagittal pedicle angle on the left side was 4.67 ± 2.04 degrees and on the right side was 4.78 ± 2.06 degrees. The mean chord length on the left side was 44.65 ± 3.54 mm and on the right was 44.78 ± 3.55 mm.

**Conclusion:** Thus, a comprehensive data set has been presented which will help in development of pedicle instruments for Indian population.

**Keywords:** Typical lumbar vertebra, pedicle, chord length.