Abstract:

**Aims**: The study was done to evaluate the influence of complete dentures on retropharyngeal space and lung volumes. **Methods**: A total of 20 patients were selected for the study and divided into two groups consisting of ten patients each. The following protocol was followed: For Group A patients (experienced denture wearers): Lateral cephalometric and spirometric tests were performed without and with old dentures on 0 day. Patients were rehabilitated with new complete dentures using standard procedures on a three point articulator. The radiograph and spirometric readings were repeated on the day of insertion. For Group B patients (first time denture wearers): Lateral cephalometric and spirometric recordings were made without dentures. Patients were rehabilitated with new complete dentures. Radiograph and spirometric recordings were made on the day of insertion and on the 15th day follow up. Radiographs were traced using appropriate landmarks.The values were recorded and analysed using appropriate statistical tests.**Results:** Results revealed that retropharyngeal space and lung volumes were significantly increased in both groups of patients after rehabilitation with complete dentures as compared to their edentulous state. Conclusion: Within the limitation of the study it was concluded that rehabilitation with complete dentures increases airway spaces and may aid in improved breathing.

**Key words:** complete dentures, retropharyngeal space, lung volumes.