

Ergonomics: Straighten Up Dentists



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Short Communication

Dentistry is the art and science which involves the treatment of the oral cavity and its related structures wherein the major treatment includes the preparation and restoration of the tooth structure, which requires precision and patience of the dentist. However, we should not ignore the laborious hard work that is involved during treating the patients and an ideal ergonomic environment is the need of the dentist while treating patients[1]. The adoption of the four hands working style has changed the dentist posture to a seating position from the orthostatic position. This position is defined and suggested for dentists in "ISO Standard 11226 Ergonomics - Evaluations of static operating postures" and termed as neutral or balanced posture[2]. This serves as a guide for the working position for the dentist and is to be used in clinical practice for an ergonomic environment. The seating posture encompasses a natural, balanced, effortless, strain free relaxed position. This position has negligible contractions and muscular strains with symmetrical and stable position. The term "neutral" denotes a zone in which movements are non strainous and keeps the overall body in a relaxed position[2]. The balanced or neutral position is the outcome of a multifaceted posture of the different body segments within its neutral parameters [3]. This includes the positioning techniques mentioned in the Table 1[4].

Hence, a symmetrical balanced position of the dentist in a clinical working environment is always recommended. Ideally when treating a patient, the region being treated should be parallel and its view oriented perpendicular to the working field and with a distance between the working field and dentist's eyes is of 35-40cm. To position the patient's head, it is important to use all his possibilities of motion: extension and flexion, rotation right or left and side flexion right or left in varying degrees and combinations[1,4,5].

The posture is a flexible one evades the rigid body attitude. The Ideal position with a straight back posture means the evasion of any C form of spine bend along with the maintenance

of paravertebral muscles tonicity, which is enhanced by the back of the seat providing lumbar support[1,4]. An ideal posture at the work station for a long period during procedures with equipment and must be "tailored" as per his/her requirement and must be adequate as a glove[6]. Magnification system includes glasses and corrective lenses, loupes and telescopes, the operating microscope deserves a special attention because it could have serious implications for posture. Properly chosen and adjusted, the magnification systems can prevent the bending of the dentist's head and the development of the musculoskeletal disorders. On the other hand, their misuse could have adverse effects, increasing the risk of musculoskeletal injuries or aggravating them[4,5,7].

So, the posture of the dentist is as important as the treatment of the patient getting treated by the patient. Hence there should be increased awareness created for the same and this can be accomplished by including it in the undergraduate and postgraduate curriculum and also further reminded with the help of continuing dental education programs in dentistry on the subject of ergonomics.

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