

MOUTH PROTECTION DEVICE

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Abstract

The proposed invention relates to a mouth protection device for protecting mandible and temporomandibular jaws from fracture and strain during dental surgery, comprising multiple adjustable straps attached to the device that adjusts the amount of mouth opening required during the dental surgery, a digital measuring scale, a display that displays the amount of mouth opening measured by measuring scale during dental treatment.

Keywords: mouth, shock, pressure, dental treatment, digital measuring scale and display unit.

1. Introduction

Dental instruments are tools that are used by dental professionals during dental surgery. They include tools to examine, treat, remove and restore teeth during the dental surgery. The dental surgery is basically specific number of dental procedures that includes artificially modifying dentition[1]. They are broadly divided into six types, such as endodontic, prosthodontic, orthodontic, apicoectomy, periodontics, oral and maxillofacial surgery[2]. A basic dental treatment is carried out by providing local anesthesia, for temporary loss of sensation or awareness of the particular portion of body during the dental treatment[3]. After that the guide holds the portion that needs treatment and doctor performs the surgery on the same, but the hand of guide may slip which can lead to disk displacement during the surgery. In order to overcome this problem[4], a device is needed to be developed that does not require the presence of the guide to handle particular portion of the person during the dental treatment[5].

2. Experiment

The proposed invention relates to a mouth protection device for supporting and protecting mandible and temporomandibular jaw from excessive stress during dental surgery. It is designed to prevent muscle and jaw joint dysfunction. The device is basically made up of a fiber material. Multiple adjustable straps are attached to the device that adjusts the amount of mouth opening required during the dental surgery[6]. The digital measuring scale attached to the adjustable straps that measures the amount of mouth opening during dental surgery, so as to prevent extra amount of pressure exerted on the mandible and temporomandibular jaws during the same. The display unit is attached to the device that shows pressure value measured by the display scale to guide a dentist about the amount up to which the mouth can be opened to perform the dental treatment. It may also displays the stress and strain exerted on mandible during the dental surgery. The display unit is preferably a digital display unit[7]. When a dentist may applies some pressure on the affected portion, at the same time the value of pressure is displayed on the display unit to guide the dentist during the dental treatment[8].

3. Result and conclusion

The device is assembled to enhance the safety of mandible and temporomandibular jaws during dental treatment. The device minimizes the need of helper required during the dental treatment. As the device is easily wearable, the person can wear the same before the treatment, so as to avoid the dental injuries.

Reference

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