Case Report: Dental Damage from a Bite Block during Endoscopy

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Abstract

Dental damage is a recognised risk and a common litigation issue in anaesthesia practice. While significant attention goes to the risk from laryngoscopy, of the reported incidence of 0.02% - 0.07% of dental damage from anaesthesia, approximately a quarter are attributable to biting and clenching during emergence onto oropharyngeal equipment. Bite block however is an uncommon cause accounting for 1-5.9% of all dental damage generally in the context of tracheal extubation. Here we report a case of dental damage resulting from a bite block during endoscopy under intravenous sedation. Written consent to publish the case report was obtained from the patient.

Keywords: Dental damage, bite block.

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Case Report

Dental damage is a recognised risk and a common litigation issue in anaesthesia practice. While significant attention goes to the risk from laryngoscopy, of the reported incidence of 0.02% - 0.07% of dental damage from anaesthesia [1-4], approximately a quarter are attributable to biting and clenching during emergence onto oropharyngeal equipment [1]. Bite block however is an uncommon cause accounting for 1-5.9% of all dental damage generally in the context of tracheal extubation [2,3]. Here we report a case of dental damage resulting from a bite block during endoscopy under intravenous sedation. Written consent to publish the case report was obtained from the patient.

A ConMed Scope Saver Bite Block (ConMed Corporation, New York, USA) was placed in between the teeth with a rubber strap around the neck on a 47 year old male undergoing gastroscopy and colonoscopy. The patient was consented to the risk of dental damage during pre-anaesthesia assessment due to identified dental risk factors of the presence of multiple dental crowns

A modified Hudson mask with a cut-out in the centre was applied with oxygen flow of 10 litres per minute. Intravenous sedation was administered with boluses of propofol in the left lateral position titrated to achieve a Modified Ramsay Sedation Scale of between 5 and 6. Small volumes of intravenous propofol were given throughout the procedure to maintain this level of sedation. The gastroscopy was completed uneventfully and colonoscopy was commenced with the bite block in situ. During retroflexion of the colonoscope to view the anal canal, the patient vigorously clenched down on the bite block followed by an audible click emanating from the contact between his teeth and the bite block. In the post-operative recovery unit, it was confirmed that the patient's dental crown on an upper incisor had been dislodged.

The primary purpose of bite blocks is to prevent damage on equipment placed in the oral cavity from biting. An ideal bite block however should also offer dental protection. It should distribute pressure evenly across dentition, placed between the molars [5], and made of softer profile.

The risk of dental damage from bite blocks is not regularly communicated to patients during pre-anaesthesia assessment nor is it consistently stated in information published by anaesthesia professional bodies for patients regarding the risks of having anaesthesia. It is our view that the risk should be explicitly stated in the informed consent process whenever bite blocks are being used.

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