

Dental Injuries are not Pleasant

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ABSTRACT

Dental injuries to the teeth and gums are almost always sudden and not at all pleasant. However, in addition to this, minor injuries often occur, which may include bleeding or the formation of lesions that do not initially cause discomfort. That is why it is important to examine the teeth and the oral cavity after every activity that can lead to similar injuries. This is very important because quick and timely action can reduce fear and pain and prevent much more serious consequences.

Keywords: Teeth; Dentistry; Bleeding; Health.

Introduction

As children, many folks experienced chipping their teeth or perhaps knocking one a small amount loose [1]. Toddlers, since they're learning a way to walk—and often learning to try and do it by running everywhere!—lose their teeth quite older children do. For kids, falls are a significant reason for losing teeth. As we become older, however, various things are more apt to cause injury to our teeth. Many teenagers and adults experience tooth injuries from things like sports and car accidents. These are called traumatic injuries of the teeth. Teenagers often have active lifestyles, with much of their free time preoccupied by organized sports. Something like a car accident cannot always be helped, but losing teeth while playing sports often can. Mouth guards should be used during many sports, and are often requirements of the sport. In some organized sports, like football and hockey, the danger of tooth and other facial damage is so great that rather than simply wearing mouth guards, people wear face masks. The risks to your teeth in some sports seem obvious. A fast observer of a team of professional hockey players reveals lots of toothless grins. Many professional hockey players wear dentures, despite still being young adults! There are other sports, however, where the hazards to your smile won't seem so obvious. Baseball, hockey, basketball, skateboarding, in-line skating, et al. are all activities within which mouth guards or face masks should be worn.

Biomaterials

There are different considerations for the function of biomedical materials which might be divided into three main classifications [2]. First, the biomaterials is considered from the point of view of the problem area which is to be solved. Some areas of problems are replacement of diseased or damaged parts (e.g. the artificial hip joint, kidney dialysis machine), assist in healing (e.g. sutures, bone plates, and screws), improve function (e.g. heart muscle, intraocular lens), correct functional abnormality (e.g. cardiac pacemaker), correct cosmetic problem (e.g. augmentation mammoplasty, chin augmentation), etc. The second classification is that the body consideration on a tissue level (i.e. organ or system levels). These are the heart (e.g. cardiac pacemaker, artificial heart valve, total artificial heart), lung (e.g. oxygenator machine), eye (e.g. lens, intraocular lens), bone (e.g. bone plate, intramedullary rod), etc. The third is for the classification of the sort of materials like polymers, metals, ceramics, and composites. The comparison between natural and engineering materials shows higher values of strength and toughness. Many natural materials have a self-healing capability against damage, on the opposite hand, man-made materials are still dramatically limited. Many natural composite materials, as exemplified by bone, have gotten toughness values that far exceed those for his or her constituents and also their

homogeneous mixture which by employing extensive extrinsic toughening mechanisms, can resist incipient crack growth.

Metals

Many of the metals used to make orthodontic appliances, like wires and auxiliaries, contain nickel [3]. It's a typical metal allergen and although many patients are sensitive to nickel in jewellery or zips and other fastenings, it's impossible that they're going to react to nickel - containing components within their mouth. However, headgear can initiate an allergic reaction on the skin that it comes in contact with. The most common explanation for trauma during treatment is ends of wires or ligatures that catch the lips, cheeks or tongue causing ulceration. Such trauma is definitely prevented by the orthodontist ensuring that the ends of the archwires are turned under or cut short and that ligature ends are tucked under the archwire. There are isolated case reports of trauma to the face or eyes resulting from headgear that has become displaced while the patient has been asleep or during play. The foremost serious of those injuries has resulted within the loss of an eye fixed that had been injured by the end of a facebow. For this reason it's now recommended that two safety mechanisms be used when headgear is used during treatment. Safety features include snap - away headgear straps, safety neck straps, locking facebows and round - ended facebows. Patients must be warned to not play in their headgear, report any instances when the headgear becomes dislodged at nighttime and seek immediate medical attention if any facial or eye injury results from the headgear.

Fractures

Head injuries are a relatively common feature of modern life usually related to violent incidents like road and sporting accidents and criminal assaults; skull fractures also are a typical kind of war injury [4]. Although dental practitioners are most likely to be called upon to treat fractures of the upper facial skeleton and mandible, they must always bear in mind that other parts of the skull may be fractured all told such cases. Injury may involve the cranial vault and cranial base in addition because the upper facial skeleton or mandible and will be single or multiple. Skull damage also can cause damage to the contents of the skull, including the brain so this possibility should be considered still in such cases. Fractures of the upper facial skeleton is also relatively simple, involving one bone or is also extensive and end in massive dislocation of the facial skeleton. Fractures of the nasal bones and septum and therefore the maxilla gum ridge are samples of the simpler injuries; these are usually produced by blows to the front of the face. Fractures of the center third of the face involving the maxillae and zygomatic bones are relatively common as are fractures of the mandible.

It's necessary to grasp muscle insertions and also the relationships of other tissues and structures to those bones

to understand the implications and potential complications of fractures to those bones. More complex fractures of the upper facial skeleton are called Le Fort fractures after the surgeon who first classified them. Bone defects within the oral and maxillofacial region are caused mainly by trauma, various pathology and their operation, and congenital situations that have functional, esthetic, and psychological effects on patients [5]. These defects remain a serious health problem that commonly challenges oral and maxillofacial surgeons, scientists, and healthcare systems. Clinician scientists are studying and applying various materials and methods to retrieve function and esthetic appearance. During this regard, the scale of bony defects and possible radiotherapy in this specific region are the most restricting factors so as to achieve a successful bone reconstruction.

Musculoskeletal Injury

Musculoskeletal injury from poor posture, poor lifting and wear and tear results in lots of working days lost within the UK and may result in long-term chronic conditions and affect capacity to work [6]. These problems can manifest in something as apparently innocuous as a stiff neck, to a sudden, acute injury sustained through an injury. Practice owners have a obligation of care to produce patients, visitors, employees and associates with a secure working environment and therefore the training and guidance to confirm all activities carried out within the practice are conducted in an appropriate and safe manner. All employees and associates have a personal responsibility to take every reasonable precaution to minimise the danger of injury due to poor posture or manual handling. Several working days a year are lost due to injuries sustained at work, many of which are entirely preventable. Procedures to reduce and manage the danger of sustaining injury through poor manual handling must be followed by all associates and employees of the company. The practice manager is responsible for ensuring all staff and associates are trained in safe manual handling techniques in accordance with the practice policy and procedure. All employees and associates are responsible for following the quality indicated within the practice policy and procedure, thus contributing to a secure working environment in any respect times and minimising the danger to themselves and others by following the procedures.

Sensitive Teeth

Teeth in traumatic occlusion will be sensitive to biting forces [7]. Specifically, teeth that are recently restored may become sensitive to normal biting pressures, presenting usually as being sore to bite on instead of acutely painful. Unless the tooth is root canal treated, responses to pulp testing are normal. Teeth may or might not be overly sensitive to percussion. Some teeth are in traumatic occlusion only over a small range of a complete excursive movement. Careful testing with articulating paper will usually

identify the precise location or spot of the traumatic interference. Placing a finger on the buccal aspect of the interproximal surface of the tooth in question and asking the patient to squeeze and grind the teeth together will usually confirm the presence of an occlusal interference in an excursive movement, because the tooth will move slightly. Slight tooth mobility or noticeable movement of the tooth during an excursive movement confirms the diagnosis. Because tooth mobility can mask the identification of an occlusal interference, stabilizing the buccal surface of the tooth with a finger during the examination may be necessary to identify the interference. One tooth with a crown can often be the cause of biting pain because of an occlusal interference that has developed over time. Teeth with a history of a luxation injury or crown fracture can present with transient biting pain.

Once a displaced tooth is repositioned, splinted and therefore the occlusion adjusted, or the exposed dentin covered on a coronal fracture, the pain generally subsides once the acute phase is over. Occasionally, adult patients that suffer concussive blows to anterior teeth experience pain on biting or percussion for several months. Although unusual, the presence of a minor alveolar fracture must be considered. Patients who are suffering severe indirect trauma where the maxillary and mandibular teeth are brought into contact with great force can suffer multiple cracked teeth, a number of which can be difficult to detect. Patients can report sharp, electric shock-like pain when touching one tooth. In the absence of an obvious dental pathosis, the chance of a dental trigger for neuralgia should be considered. The exceedingly sharp pain in these cases is comparable to but not the identical as that experienced in an exceedingly cracked tooth. The pain is initiated by only a small touch. A cracked tooth usually requires a firm biting force or a firm percussive blow during diagnostic testing to initiate the pain. Pulp sensibility testing is required to rule out pulpal or periapical pathosis.

Bleeding

Hemorrhagic emergencies in dentistry are mostly the results of surgical interventions but also can be the results of accidental injuries of soft tissues by high-speed rotary or hand-held instruments [8]. Outside of the dental office, trauma to the lips, tongue, and also the within the mouth occurs quite frequently. The exposed location of the lips make its mucosa and skin susceptible to injury. A blow to the face can crush the lips against the teeth, causing puncture wounds, lacerations or crush injuries. Similar trauma might also cause the teeth to injure the tongue. Any laceration inside the mouth tends to bleed heavily because of the rich blood supply to the area. Because of the doubtless high morbidity related to hemostatic failure within the surgical patient, each patient should be carefully assessed before surgery for risks of bleeding. The foremost valuable preoperative screening tool to assess the

risk for a bleeding complication could be a comprehensive clinical history. The dentist should try and elicit information from the patient about known hemostatic disorders, any history of bleeding from previous surgery, and current medication usage, including both prescription and nonprescription drugs. Drug usage is that the most typical undocumented reason for bleeding within the oral surgical patient. A stress should be placed on NSAIDs, because they're the foremost widely used drugs that will cause bleeding and are available under a good type of trade names. The dentist performing surgical procedures should be accustomed to the fundamental techniques of hemorrhage control for various types of bleeding episodes: bleeding from small vessels, bleeding from large vessels, generalized oozing, drug-induced bleeding, or bleeding during a patient with an underlying coagulation defect. Within the dental setting, surgical bleeding is typically easily controlled with pressure within the overwhelming majority of patients. A bleeding emergency, therefore, is one during which simple pressure isn't successfully controlling the bleeding.

Reconstruction

Maxillofacial reconstruction is complicated because of the etiology and nature of the tissue injury [9]. The complexity of the facial structures adds to the difficulty of rehabilitation both functionally and esthetically. Skeletal reconstruction is far and away the best a part of the rehabilitation. Restoration of soft tissues like skin, cartilage, and mucosa without the support of the underlying bony architecture is feasible with prosthesis. Silicone is that the most ordinarily used prosthetic material for maxillofacial rehabilitation. Nanomaterials play a vital role in bestowing color compatibility and interface stability within the prosthesis.

Patients with Disabilities

Oral implications of disability are associated with the disability itself and to the side-effects of treatments used [10]. Additionally to reduced access to normal dental care many patients aren't able to maintain their own oral health and need assistance to perform regular tasks, e.g. tooth brushing. Those with severe neuromuscular, neurological or learning difficulties often suffer with incontinence of saliva and bruxism, increasing tooth wear. Patients with seizure disorders may suffer frequent traumatic injury to their teeth and oral soft tissues. In Down's syndrome there's an increased susceptibility to disease. Many drugs used for treatment of disabling conditions, e.g. anti Parkinson's or antidepressants, cause dry mouth as a sideeffect, resulting in swallowing and speech difficulties and increased susceptibility to caries. In disorders that affect muscle control and movement, denture wear and routine dental treatment are often difficult. Management of disability often requires a multidisciplinary approach with close liaison between the dental team and people involved within the medical and social

care of the patient. the foremost helpful strategy is removal of the barriers to dental care, allowing the overwhelming majority of disabled patients to be treated in general practice. Physical alterations to assembling is also required but equally important is that the availability of knowledge in formats understandable by all patients, e.g. large print and Braille. Training of staff within the awareness of the problems posed by disability is helpful.

Law and Ethics

Law and ethics are now fundamental to the practice of dentistry and underpin your relationship with the profession and together with your patients [11]. Probity lies at the guts of your professionalism and requires strict adherence to a code of ethics and therefore the law. The law informs dentistry at every stage and it's essential that dental professionals understand and are ready to critically reflect on the legal issues relevant to practice. this is often particularly true in emergency situations when an appropriate and timely response is required. When dental professionals treat patients they undertake a obligation of care towards those persons to not harm them in accordance with the law of negligence. Where dental professionals provide treatment to a patient for a fee then that treatment are regulated under the laws of contract with the patient able to sue if the contract isn't fulfilled. Dental professionals' right to the touch a patient are supported the law of consent and therefore the informed and freely given permission of the patient are a prerequisite to any lawful treatment. The legal principles of confidentiality and negligence regulate the connection between the dental professional and therefore the patient while they're within the professional's care. A registered dental professional is legally and professionally in control of his or her actions, regardless of whether or not they are following the instruction of another or using their own initiative.

Healthcare litigation is increasing and patients are increasingly prepared to say their legal rights. U.S. law is outlined under principles of criminal and civil law; the latter is split into contract and tort law [12]. Most legal issues associated with practice involve civil wrongs or torts— that's, wrongful acts or injuries, not involving breach of contract, that a personal can bring a action for damages. Malpractice is a component of the law of negligence, which constitutes one form of tort. A malpractice suit based on the law of negligence alleges that the dentist didn't employ the care and skill of the average qualified practitioner. It further alleges that the failure to use the specified care and skill was the "proximate cause" of the patient's injury. Malpractice is considered an unintentional tort. it's normally covered by dental insurance. Informed consent cases used to be based on the speculation of assault and battery, but today they're considered no differently from other malpractice cases. Invasion of privacy, an intentional tort, results when a patient's image or name is used by a dentist for private gain, like in

advertising. Discussing a patient by name without permission, with persons aside from the clinical staff, also may be construed as a violation of the privacy implied by the doctor-patient relationship.

Conclusion

Given the fact that toothache is one of the strongest pains which a person feels, it is reasonable why many people are afraid to go to the dentist. In the past, due to the lack of anesthesia, dental interventions were very painful, so even today, due to insufficient information, the fear of dentists has remained ingrained in our psyche. Thanks to modern technologies, today even complicated dental procedures have become painless. First of all, it is necessary to create the habit of regular visits to the dentist. Regular checkups are essential from the first baby teeth. In this way, minor procedures, such as brushing teeth and gums, avoid interventions that require anesthesia. Even if enough care is taken of oral hygiene, tartar occurs which, if not removed in time, can cause major complications.

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