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Research Article

KNOWLEDGE AND PERCEPTION AMONG DENTAL STUDENTS ABOUT RESORBABLE SUTURES IN DENTAL PRACTICE

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ABSTRACT

Aim: The aim is to assess the knowledge and perception among dental students regarding resorbable sutures in dental practice

Objective: To prepare a questionnaire based study among dental students to assess the knowledge and perception of resorbable sutures in dental practices and to explain about the suture materials and their uses to help the dental practitioners obtain optimal wound closure

Background: Suturing is one of the important clinical step for a successful implant. The evaluation of various suture materials and suturing techniques is regarded particularly important for a perfect closure of wound so as no infection can affect the prognosis of implant. Sutures were originally made of the intestines of sheep, the so called catgut. However, the majority of absorbable sutures are now made of synthetic polymer fibers, which may be braided or monofilament; these offer numerous advantages over gut sutures, notably ease of handling, low cost, low tissue reaction, consistent performance and guaranteed non-toxicity. This study aims at finding the knowledge and perception among the dental students and practitioners about resorbable sutures and its uses in dental practices.

Reason: This study is done in order to assess the knowledge and perception about resorbable sutures and to create more awareness about the characteristics of the resorbable sutures and its uses.

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INTRODUCTION

Suturing is the final procedure of a surgery which is used to reattach the removed tissue, to control bleeding and allow for primary healing. A wide variety of material is available for suturing and ligating tissues. Sutures are selected for use according to the required function^[1]. This survey presents an update on the knowledge and perception among dental students regarding resorbable sutures to assess their awareness about characteristics and principles of suture selection which aids them in obscuring optimal soft tissue management. Most oral surgical interventions require primary wound closure using a previously raised flap^[2,3]. For this purpose, a variety of suture materials are available which may be classified upon their origin (organic and synthetic) or according to their durability in host tissues (absorbable and nonabsorbable)^[5-6]. There are some essential features of suture materials which include (1) knot safety, (2) stretch capacity, (3) tissue reactivity, and (4) wound safety. Besides the adopted surgical and suturing technique, the choice of suture material may also influence the healing of the incised soft tissues^[5-7,15].

The art and precise skill of suturing is paramount to the success of all surgical procedures^[4,22]. The evolution of suturing material has presented dentists with advancements in sutures designed for specific surgical procedures^[2,20]. With the sophisticated surgical procedures used daily, there is a greater need for knowledge with regard to the various types of suturing armamentarium available to help obtain optimal wound closure. The success of technique-sensitive procedures such as conventional periodontal therapy, dental implant therapy, mucogingival microsurgery, periodontal cosmetic plastic surgery, regeneration of hard and/or soft tissue, and excisional treatment of pathologic tissue depends on the clinician's knowledge of and skill at executing proper suturing for optimal wound closure^[3,19]. The recent innovations in suturing materials not only eliminate some of the difficulties previously encountered during surgical closure but also decrease the potential for postoperative infections^[17,18]

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MATERIALS AND METHODS

The present study is a cross sectional survey where a questionnaire consisting of 20 questions were distributed to 100 dental students and the results were further evaluated.

RESULTS

According to the survey the statistical analysis showed that 84% of the students have knowledge regarding resorbable sutures and their uses in dental practices. In response to the types of sutures based on material, 40 % of respondents selected absorbable and non-absorbable sutures which shows that there is a need to create an awareness about suture materials which helps the practitioners to understand the effects of sutures in tissues. In response to the preferable suturing technique, continuous locking sutures is preferred mostly by the respondents which shows that the practitioners are comfortable with that technique. In response to the purpose of the vicryl, 57% of the respondents selected deep suturing mucosal closure which shows that there is a need of awareness about the purpose of vicryl.



Figure 1 No of people aware of suturing

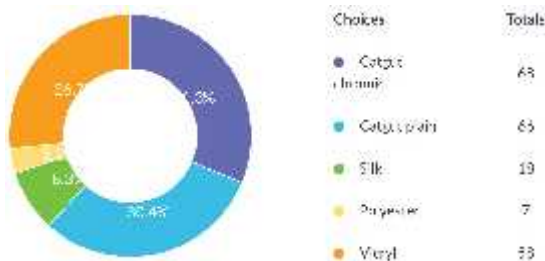


Figure 2 No of people aware of resorbable sutures.



Figure 3 No of people knowing the purpose of resorbable sutures.

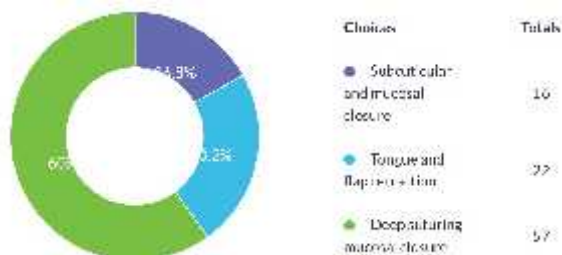


Figure 4 No of people knowing the purpose of vicryl.

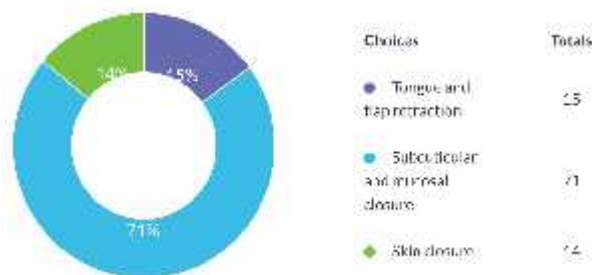


Figure 5 No of people knowing the purpose of plain gut.

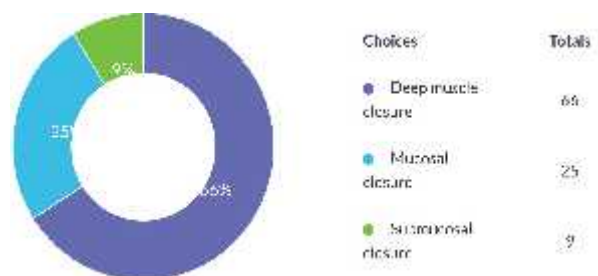


Figure 6 No of people knowing the purpose of chromic gut.



Figure 7 No of people aware of suture materials that are biological.

CONCLUSION

Dentistry has been increasingly inserted into a context based on scientific evidence. The results of present study concluded that majority of the responses have knowledge regarding resorbable sutures and their uses in dental practices. Thus, studies should use methodological criteria that qualify the evidence, including tools such as randomisation, sample size calculation, calibration, blind-ing and control of involved factors^[8]. Although the knowledge and perception among the students, post graduates and dental practitioners is sufficient and satisfactory which was assessed through this survey. It provides the need to educate the practitioners and post graduates to carry out the same and practice it in patients with effective suturing techniques. Though according to our survey enough and sufficient knowledge has been provided along with their curriculum. Further seminars and workshops can be conducted on the same and also provide them with a hands on usage for the better training of the dentists. However there is a need to create awareness on suture materials and suturing techniques for holistic management of suturing^[11].

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