Tensile force analysis for sutures most commonly used in dentistry during surgical procedures

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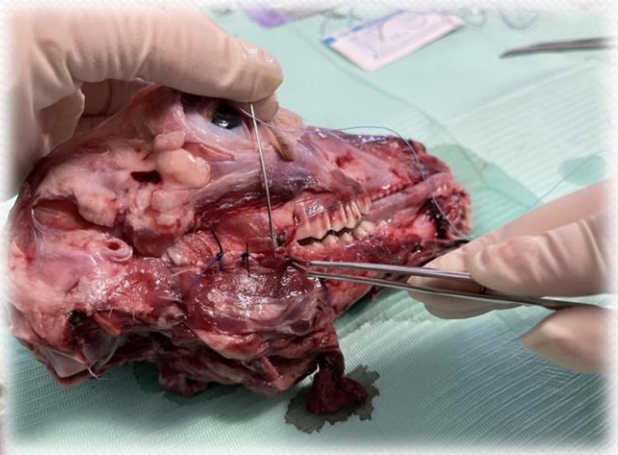
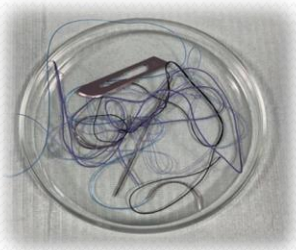
6-10 June RAP 2022

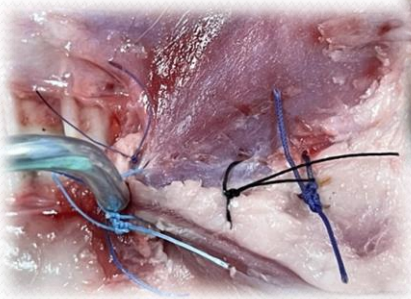
Introduction: Suturing as a procedure of joining the lips of the lembo or wound, is important in the beginnings of the healing process. This procedure helps to pass the healing process from the procedure per secundam to the stages of healing per primam, thus logically reducing the healing time of the wound. The element that remains in the individual selection of the dentist applying the suture is the selection of the suture material. At moment when some types of sutures are offered for use, some elements should be considered in the selection of the suture depending on the constituent material, the cross-section of the suture elements on whether it collects bacteria in the "pits" created by the material. The presence of bacteria is a source of infection and possible delay in healing of the sutured wound.





Materials and methods: Experimental study performed by applying different types of sutures, on soft tissues taken from goat head, in vitro, in terms of code of ethics. After application, the suture tensile force was checked by applying a dynamometer with a traction force of 25 cm / mm. then re-examination of the suture tensile force was performed after 3 days of storage of the secondary tissue under conditions of the presence of physiological solution.

Results: Sutures have tensile forces distinct from each other, but which are also influenced by the type of yarn used for suturing. the reduction of tensile force after 3 days of application was significant but higher in absorbable sutures.



Conclusions: The marketing of suture types offers a variety of materials, from which the selection of the most suitable suture type for specific application cases is a personal indication of the dental surgeon, based on professional experiences and knowledge in the field.

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