Parotid Duct Repair With Suturing and Anastomosis Using Tissue Adhesive, Evaluated by Sialography: An Experimental Study in the Dog.

Authors: Ghoreishian M., Gheisari R.

Publication Date: 2009

Abstract:

Purpose: The most common method of parotid duct anastomosis is suturing. In addition to the postoperative complications in suturing (ie, anastomosis leakage, fistula formation, and infection of maxillofacial spaces), the surgical duration and suturing difficulties arise as major problems. The efficacy of fibrin glue in parotid duct anastomosis was evaluated and compared with suturing in 15 dogs. Materials and Methods: Fifteen dogs (of the same breed and gender) were studied in this experimental trial. Intravenous cephalothin (1 g) and intramuscular dexamethasone (8 mg) were administered preoperatively for all cases, but no drug was administered postoperatively. Extraoral transverse incisions were made in buccal regions bilaterally to expose parotid ducts and transection was performed in similar areas (right and left). Next, the right transected duct was repaired with 7-0 nylon sutures, and then the left anastomosis was performed, using fibrin glue. At 10 days after the operation, clinical evaluations and sialography were used to evaluate the quality of the anastomosis repair, ductal leakage, and fistula. Results: The ductal fistula was found on the right in 2 cases (13.33%) and on the left (20%) in 3 cases. Aspiration was positive in the right parotid duct in 2 cases (13.33%) and in the left parotid duct (33.33%) in 5 cases. Also, right ductal leakage was seen in 4 cases (26.66%) and left ductal leakage in 7 cases (46.66%), using sialography. Conclusions: The results of this study suggest that the efficacies of fibrin glue and suturing in parotid duct anastomosis are similar, but the use of fibrin glue had a number of advantages, including shortening of the operative time and the possibility of stent removal intraoperatively.

Oral and Maxillofacial Surgeons.