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## MICROSURGICAL CARE OF STENSEN'S DUCT TRAUMA - CASE REPORT

### MIKROHIRURŠKI TRETMAN TRAUME STENSENOVOG (STENONOVOG) KANALA - PRIKAZ SLUČAJA

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**Summary:** A 27 year old patient suffered an injury from the chain of chainsaws while Stensen's, duct was cut which caused the uncontrolled swelling of saliva in the facial tissue. Microsurgical reconstruction of the parotid salivary gland duct was performed with microcatheter and anastomosis in the area of discontinuity of Stensen's duct. Microcatheter was conducted in the oral cavity and fixed in the region of the papilla of Stensen's duct, what immediately led to normal salivary flow from glands to oral cavity. After 15 days microcatheter was removed from the duct, while a proper function and correct anatomical relations were established with reconstruction of the soft tissue.

**Keywords:** Stensen's duct, microcatheter, anastomosis

#### INTRODUCTION

Stensen's duct injury is often artificially caused during facial surgeries and rarely in accidents. However, all authors agree that accidental injuries of these anatomical structures [1], happen to be much more difficult, that usually lead to the complete termination of Stensen's duct or its continuity. These circumstances result in uncontrolled saliva flow into the soft facial tissues instead of the oral cavity.

#### AIM

The aim of this paper is to explain microsurgical care of Stensen's duct trauma caused by accidentally termination of continuity of the duct.

#### METODOLOGY

A 27 year old patient reported at local Health Care in Uzice, because of facial trauma.

The injury happened during wood cutting with chainsaw, when the chain broke and hit the patient into the face. The patient shortly lost conscious and then asked for help because of massive bleeding from big facial laceration. At HC in Uzice where she was primary taken care of, among bleeding it was also found extensive saliva flow through a wound. She was sent in an ambulance to our clinic where after maxillofacial surgeon and a plastic surgeon

examined her, she was put through surgical treatment of injuries [2], while under general endotracheal anesthesia (photo 1).



Photo 1

Clinical examination revealed laceration on the face and neck, 10cm long and 1 cm wide, with blood and saliva flow. After wound toilet, except muscle-skin structures, other anatomical structure as well as parotid salivary gland duct were not identified, while the branches of n. facialis were seen in the depth of the tissue [3]. By blunt surgical preparation

on the depth of the wound, both ends of the severed salivary gland duct were identified while the branches of n. facialis [4] were verified as intact.

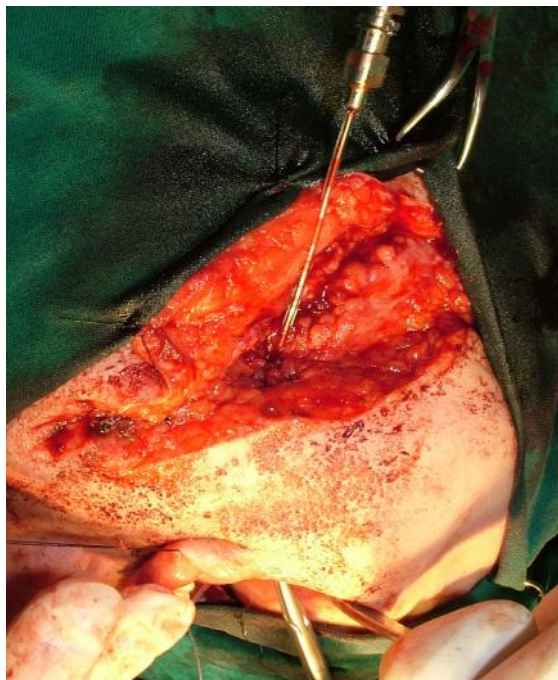


Photo 2

Next step was the preparation of Stensen's duct from the surrounding tissue and then indentation of microsurgery catheter in both duct ends. Both ends of the interrupted duct were merged through microcatheter, then microsurgically sutured, making sure that suturing procedures [5] affect only tissue of Stensen's duct. The end of microcatheter [6] was intraorally passed to the papilla of the Stensen's duct and then a minimal incision in the region of the papilla of the Stensen's duct was performed, so microcatheter could protrude into the oral cavity with a length of 5 mm. In this position microcatheter is fixed in the oral cavity in the region of the papilla of the Stensen's duct and saliva flow in the oral cavity was immediately re-established.

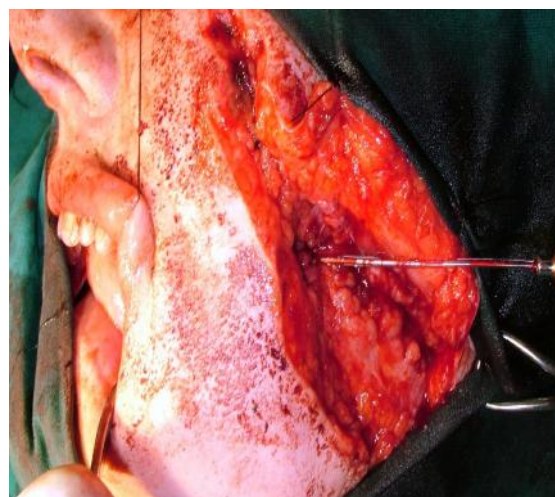


Photo 3

After that, extra oral reconstruction of skin muscle structure [7] of the face and the neck was performed, as well as microsurgical anastomosis of Stensen's duct that led to correct anatomical relations. Operative and postoperative course went well, wound toilet was performed every two days and stitches were removed after seven days, while microcatheter was removed from Stensen's duct intraorally after two weeks. On the checkups, patient confirmed that all her functions were restored and anatomical structure [8] were back into the correct position.



Photo 4

#### CONCLUSION

With Stensen's duct trauma it is possible to remain correct anatomic and functional status only by microsurgical anastomosis of parotid salivary gland

duct, because only that allows the normal flow of

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Pacijent, 27 godina star, pretrpeo je povredu lica lancem motorne testere, prilikom koje je presečen Stensen-ov (Stenon-ov) kanal, pa je pljuvačka oticala kroz i u tkivo lica. Mikrohkirurška rekonstrukcija parotidne pljuvačne žlezde učinjena je uz upotrebu mikrokatereta, gde je učinjena anastomoza područja gde je došlo do diskontinuiteta Stenonovog kanala. Mikrokateret je sproveden u usnu duplju i fiksiran u regiji papile Stenonovog kanala, prateći normalni put izlivanja pljuvačke. Nakon 15 dana mikrokateret je izvađen iz kanala, a normalna funkcija derivacije pljuvačke iz kanala, kao i korektni anatomske odnosi su uspostavljeni zahvaljujući preciznom mikrohkirurškom radu.

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