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Case Report

A Device for Polypectomy May Contribute to Safety in Bloodless Resection of a Small Hemangioma of the Tongue under Local Anesthesia

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ABSTRACT

Hemangiomas require appropriate treatments with controlled intraoperative bleeding. Even for a small hemangioma, the treatment is usually provided under general anesthesia to control bleeding. However, in the case of the patients who are at high risk of surgery under general anesthesia, a surgical treatment method must be considered under local anesthesia. We performed polypectomy for the resection of a small tongue hemangioma in an 88-year-old patient under local anesthesia. The device for polypectomy is suitable for the resection of a small hemangioma of the tongue, even for a patient who is at risk for surgery under general anesthesia.

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Introduction

Hemangiomas require appropriate treatments with controlled intraoperative bleeding, especially in the oral cavity [1]. It is difficult to control bleeding by conventional surgical methods because hemangioma is a benign tumor of dilated blood vessels. These treatments usually were performed under general anesthesia to control safety hemostasis. Polypectomy is underutilized for small polyp resection despite its favorable safety and efficacy [2]. A device of polypectomy made by Martin Co. Ltd. (Germany) automatically outputs small current for alternating incisions and coagulations for fast bloodless excision. This method is useful for resection of small polyps and pedicled polyps under local anesthesia.

Technical Note Report

Recently, we tried to use the device for polypectomy of a small tongue hemangioma in a patient. The patient was an 88-year-old woman with small hemangiomas on the lateral surface of the tongue (Figure 1). The

size recorded was a 15x10mm solid tumor by ultrasound examination (Figure 2). The treatment under general anesthesia could not be performed due to her serious heart disease. Therefore, we had to set up a new safe treatment under local anesthesia. 2% Lidocain 2.6-mL without adrenalin was used to prevent the hemangioma from shrinkage (Figure 3). Three minutes after local anesthesia, the operation was started. At first, a ring of the device was fitted around the hemangioma. Secondly, the hemangioma was softly grasped with forceps and raised upward for excision. Then, the hemangioma was completely resected by the polypectomy device with slow secure hemostasis and cutting of the surrounding tongue muscle, including the invisible micro-veins (Figure 4). The time required for resection was around 15 seconds, and the amount of blood loss was extremely small, i.e., less than 1g. The wound was closed by 4/0 nylon surgical suture (Figure 5). There were no postoperative local complications, and wound healing was good. At 2-week postoperative follow-up, the symmetry of the tongue was confirmed (Figure 6). The histopathological report confirmed the diagnosis of cavernous hemangioma.

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Figure 1: Isolated hemangioma on the right side of the tongue sized 15x10cm.

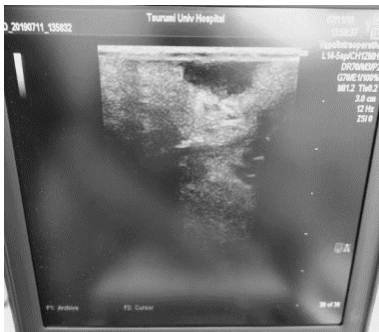


Figure 2: Ultrasonic examination of the solid hemangioma located on the right side of the tongue.



Figure 3: 2% Lidocain 2.6-mL without adrenalin was used to prevent the hemangioma from shrinkage.

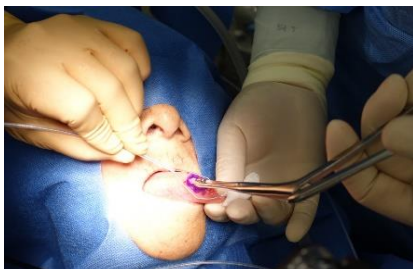


Figure 4: Excision the surface layer of the periphery of hemangioma by the polypectomy device.



Figure 5: The wound was closed by 4/0 nylon surgical suture.



Figure 6: Finding at 2 weeks post operation.

Discussion

The appearance of cavernous hemangioma rarely occurs on the tongue. The early stage of hemangioma may be very cellular with solid nests of plump endothelial cells and little vascular lumen. The localized and superficial hemangiomas of the tongue were treated by conventional resection with cold knife, cauterization by Plasma Knife surgery with radiofrequency (PK), and intralesional laser treatment. It was difficult to control bleeding during surgical excision with cold knife. The tongue hemangioma requires careful consideration for consequent bleeding [1]. As a conservative treatment, intralesional laser treatment of the tongue vascular lesions was effective; however, slight paresthesia and ulcer formation occurred as complications [3]. PK was developed as a new cautery. There was no bleeding during the cauterization of the small hemangioma and no recurrence postoperatively; however, the wound healing required around three weeks [4].

The resection using the device for polypectomy for the treatment of small tongue hemangioma was controlled under local anesthesia with some advantages, including the points of bloodless and short surgery, with less complications in comparison to the other treatments mentioned above. However, gastrointestinal bleeding is the most common serious adverse event with reported risks of 0.1–0.6% [5]. To prevent postoperative bleeding, just in this case, the wound was closed by 4/0 nylon suture.

In conclusion, the device for polypectomy is one of the feasible devices for resection of a small hemangioma of the tongue, even for a patient who is at risk for surgery under general anesthesia.

Conflicts of Interest

None.

Ethical Approval

Not applicable.

Consent

The patient has given permission to publish the paper.

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