

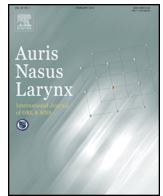


ELSEVIER

Contents lists available at ScienceDirect

Auris Nasus Larynx

journal homepage: [www.elsevier.com/locate/anl](http://www.elsevier.com/locate/anl)



## The utility of vacuum-assisted closure therapy for skin necrosis secondary to cervical abscess in the elderly

Tadataka Tsuji<sup>a,c,\*</sup>, Koichi Satoh<sup>a</sup>, Emi Okuno<sup>a</sup>, Akiko Sobue<sup>a</sup>, Yoshiya Nishide<sup>b</sup>, Susumu Tanaka<sup>c</sup>, Mikihiro Kogo<sup>c</sup>

<sup>a</sup> Department of Oral and Maxillofacial Surgery, Saiseikai Matsusaka General Hospital, 15-6 Asahimachi 1-ku, Matsusaka, Mie 515-8557, Japan

<sup>b</sup> Department of Radiology, Saiseikai Matsusaka General Hospital, 15-6 Asahimachi 1-ku, Matsusaka, Mie 515-8557, Japan

<sup>c</sup> The First Department of Oral and Maxillofacial Surgery, Graduate School of Dentistry, Osaka University, 1-8 Yamadaoka, Suita, Osaka 565-0871, Japan

### ARTICLE INFO

#### Article history:

Received 13 August 2016

Accepted 2 November 2016

Available online xxx

#### Keywords:

Vacuum-assisted closure

Neck abscess

Skin necrosis

Oldest-old patient

Low albumin

### ABSTRACT

Vacuum-assisted closure (VAC) systems have been used as negative-pressure dressings in various fields, including decubitus ulcer, trauma, and wound dehiscence. To the best of our knowledge, few reports have examined the utility of VAC therapy for neck abscess in an oldest-old patient. We present here a rare case of neck abscess secondary to parotid abscess, resulting in extensive skin necrosis. Successful management included emergency drainage following epithelial induction through a VAC system without using skin grafting. Two months after surgical intervention, the cervical wound was completely healed without a solid scar. We consider the VAC therapy to be a key factor leading to the complete healing in the elderly under low serum albumin condition.

© 2016 Elsevier Ireland Ltd. All rights reserved.

## 1. Introduction

Abscess formation and cellulitis involving the whole area of the neck is a life-threatening condition, because spread to the mediastinum can lead to severe complications including mediastinitis, pericarditis, and septic shock. The main method of treating deep neck abscesses more than 3 cm in diameter should be early drainage, whereas therapeutic needle aspiration and conservative medical treatment are limited to minimal abscess formation [1]. Conventionally, the transcervical approach is useful for drainage of necrotic materials and secretions from deep neck abscesses.

*Abbreviations:* CLDM, clindamycin; CRP, C-reactive protein; CT, computed tomography; CTRX, ceftriaxone; Neut, neutrophil; NPUAP, National Pressure Ulcer Advisory Panel; VAC, vacuum-assisted closure; WBC, white blood cell.

\* Corresponding author at: Department of Oral and Maxillofacial Surgery, Saiseikai Matsusaka General Hospital, 15-6 Asahimachi 1-ku, Matsusaka, Mie 515-8557, Japan. Fax: +81 598 51 6557.

E-mail address: [g2787b@dent.osaka-u.ac.jp](mailto:g2787b@dent.osaka-u.ac.jp) (T. Tsuji).

<http://dx.doi.org/10.1016/j.anl.2016.11.008>

0385-8146/© 2016 Elsevier Ireland Ltd. All rights reserved.

Successful treatment of a variety of complicated wounds using a vacuum-assisted closure (VAC) system as a negative-pressure dressing was first reported in 1997 [2]. Many successful reports have since been made in diverse fields, including general surgery, plastic and reconstructive surgery, gynecology and traumatology. In the head and neck region, the management of complicated wounds with a VAC system has been reported [3]. However, few reports have described management of neck abscess using a VAC system.

This is the first description of the observation and management of a cervical wound involving skin necrosis secondary to parotid abscess in an oldest-old patient, followed by urgent drainage and systemic antibiotic treatment together with use of a VAC system. We discuss the utility of VAC therapy for cervical abscess based on the literature.

## 2. Case presentation

An 88-year-old woman was referred to our hospital complaining of continuous swelling developing from the left



Fig. 1. Redness extends to the left cervical region over the collarbone.

parotid gland to the supraclavicular area. The patient had been taking oral medications for hypertension, hyperlipidemia, and osteoporosis for several years, but had no history of surgical procedures or trauma of the parotid gland. Although a reddened area with edematous swelling of the skin was evident over the whole left neck (Fig. 1), no signs of infection in the oral cavity were observed. In addition, contrast-enhanced computed tomography (CT) (Acquilion ONE™; Toshiba, Tokyo, Japan) revealed inflammation arising from a parotid abscess had spread to the whole area of the left neck over the sternocleidomastoid muscle and to the supraclavicular area as well as the inside of the internal pterygoid muscle, suggesting that an extensive abscess of the parapharyngeal

and neck space on the left side might extend to the trachea and mediastinum (Fig. 2). Blood tests underlined elevations in inflammation indexes [white blood cell (WBC), 15,500/ $\mu$ L; C-reactive protein (CRP), 15.5 mg/dl; neutrophil (Neut), 96.2%]. To prevent involvement of the mediastinum, the patient underwent surgical intervention including emergent drainage together with administration of systemic antibiotics [ceftriaxone (CTRX) 2 g + clindamycin (CLDM) 1200 mg] under general anesthesia. We approached the abscess cavity through cervical skin incisions along both the submandibular and supraclavicular lines, draining an extensive volume of purulent secretion with pungent odor from the left neck and parapharyngeal space. After abundant saline irrigation, a conventional drain was positioned. After surgery, the surgical wound was irrigated twice daily with saline and necrotic tissue was removed. On postoperative day 4, microbiological cultures showed positive results for *Peptostreptococcus micros*, an anaerobic Gram-positive coccus. Antibiotic treatment (CTRX 2 g + CLDM 1200 mg/day) was continued from admission for a total of 10 days. As shown in Fig. 3A, the skin necrosis over the penrose drain was noted at 9 days after surgical drainage, followed by repetitive necrotomy. Although evident necrotic material due to bacterial infection was not observed, consistent with decreases in inflammation indexes (WBC, 4400/ $\mu$ L; CRP, 4.4 mg/dL; Neut, 83.9%) on day 13 after surgical intervention, it remained wide skin defects (Fig. 3B). The serum albumin level was markedly lowered (1.7 g/dL) together with a decrease in oral intake in comparison with the level at the time of admission (2.5 g/dL).

The main issue is to manage the treatment of wide skin defects in an oldest-old patient under low albumin condition. One treatment is considered to wait and see wound healing through frequent exchanges of sterile polyurethane foam dressings, however there is a high possibility that it results in scar formation. Second treatment is the skin grafting with conventional tie-over method or together with VAC therapy. But this procedure should be treated under general anesthesia which might lead to high risk such as worsening of general state in an oldest-old patient. Another treatment is the VAC therapy to shorten the time required for wound healing. The patient did not wish surgical treatment. The VAC therapy was then chosen. VAC foam (GranuFoam® Standard Dressings Kit; Kinetic

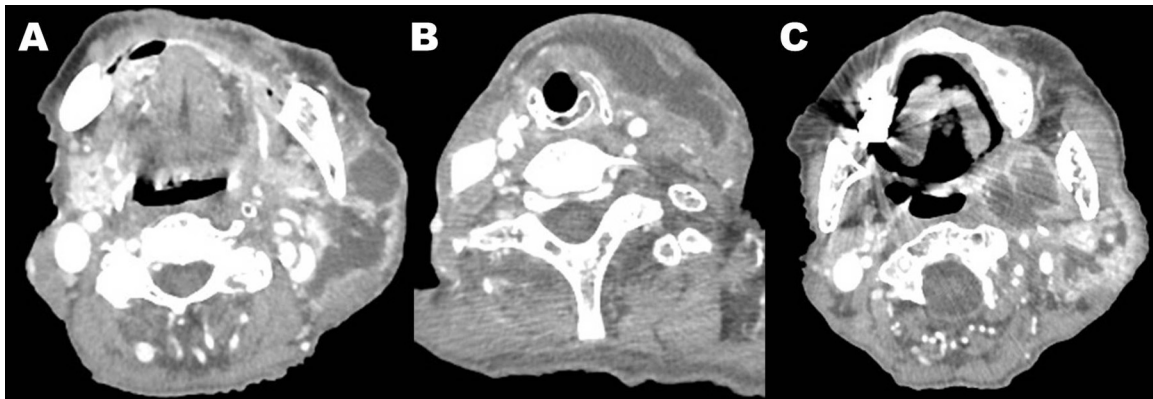


Fig. 2. CT shows the extent of the abscess, arising from the left parotid gland (A) and spreading to the whole left neck over the sternocleidomastoid muscle (B) and inside the internal pterygoid muscle (C).

Download English Version:

<https://daneshyari.com/en/article/8754880>

Download Persian Version:

<https://daneshyari.com/article/8754880>

[Daneshyari.com](https://daneshyari.com)