

INJE UNIVERSITY SANGGYE PAIK HOSPITAL

# A case of deep neck infection after re-cementation of implant crown

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## Introduction

The fascial space is a potential space surrounded by the fascia and does not normally exist, but is formed by infection. If the dental infection spreads through the alveolar bone and soft tissue to the fascial space, the infection can spread rapidly because there is no anatomical protection device in the fascial space, and can easily spread to the adjacent space by the contraction and relaxation of the muscles. Because the fascial spaces are interconnected, more often than one fascial space is affected, and when it invades the deeper fascial space, it causes complications such as acute airway obstruction, sepsis, mediastinitis, cavernous sinus thrombosis, and necrotizing fasciitis that can threaten the patient's life.

The causes of fascial space infection can be largely divided into odontogenic and non-odontogenic causes. In most cases, it can be said to be odontogenic causes such as dental caries and periodontitis. Also these infections can occur after invasive dental treatment such as in the case of secondary infection after tooth extraction, but can also occur after non-invasive dental treatment. There has not been much discussion of the fascial space infection that occurred after non-invasive dental treatment.

In our department, we would like to discuss the fascial space and deep neck infection that occurred after non-invasive dental treatment such as implant crown re-cementation in a 60s patient with peri-implantitis.

## Case report

- Age / sex : 60s / M
- C/C : gingiva and neck swelling after re-cementation of #47 implant crown
- PMH : HTN, DM, Hyperlipidemia(+)

A patient was referred to the department of oral and maxillofacial surgery with the chief complaint of gingiva and neck swelling after re-cementation of #47 implant crown.

Through Neck CT without C.E and MRI, suspicious abscess lesion was seen on cervical area below submandibular area and Lt. parapharyngeal area. Under general anesthesia, incision and drainage was done on Lt. parapharyngeal area and cervical area.

After taking Neck CT with C.E, we extended the incision line, removed necrotic tissue and took secondary incision and drainage on Lt. parapharyngeal area and visceral space under general anesthesia.



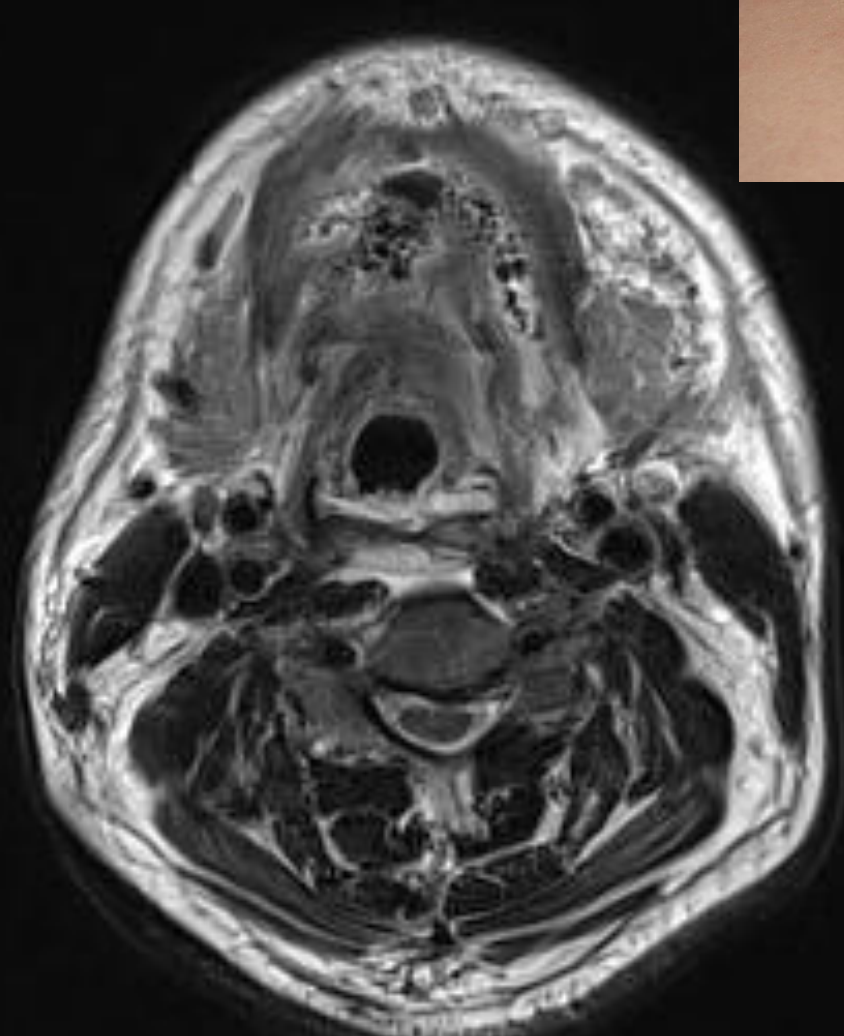
First visit panorama



Pre-op Neck CT without C.E  
; because of kidney function

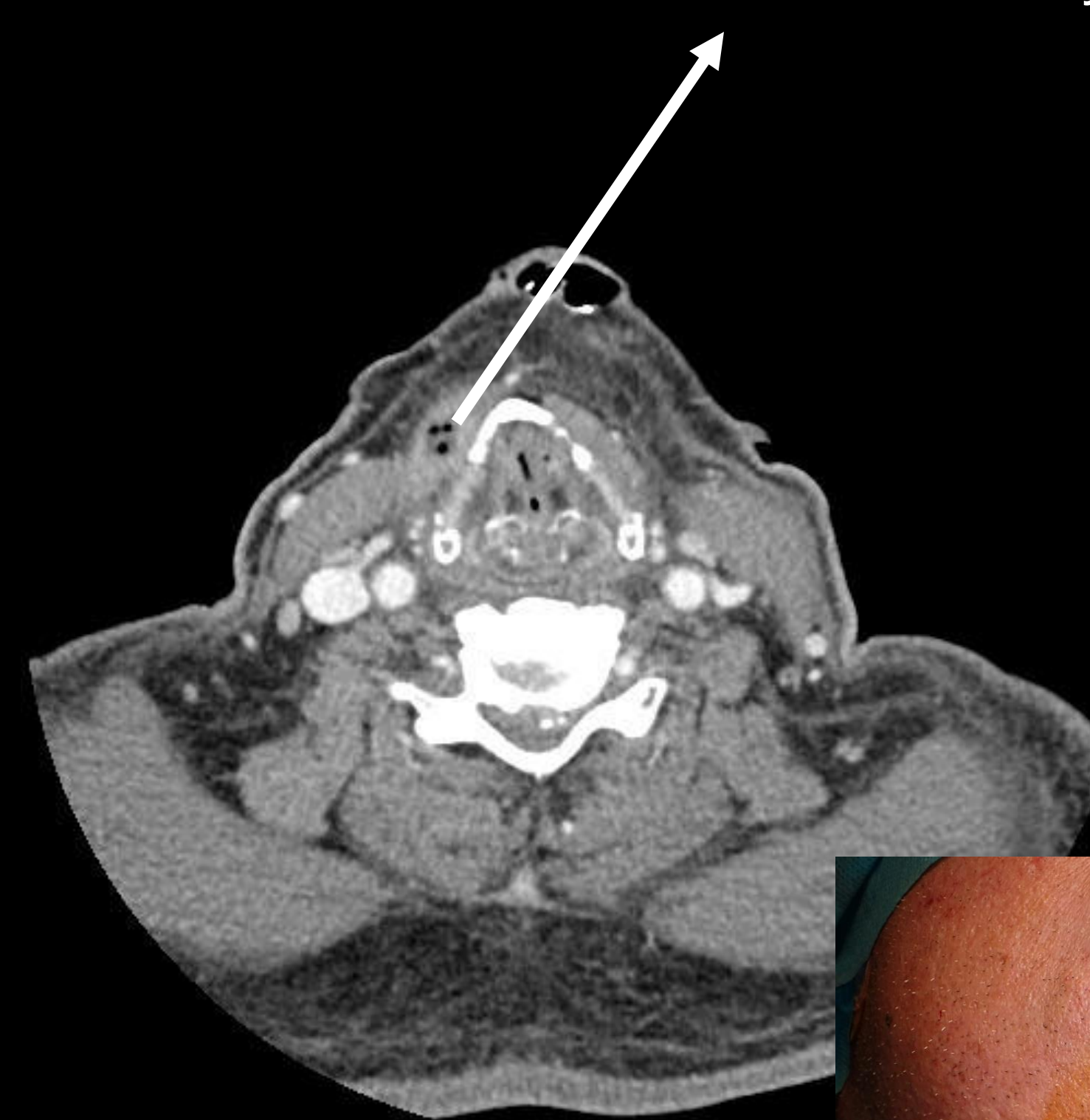


Pre-op photo



Pre-op MRI  
; because of kidney function

Abscess cavity formation



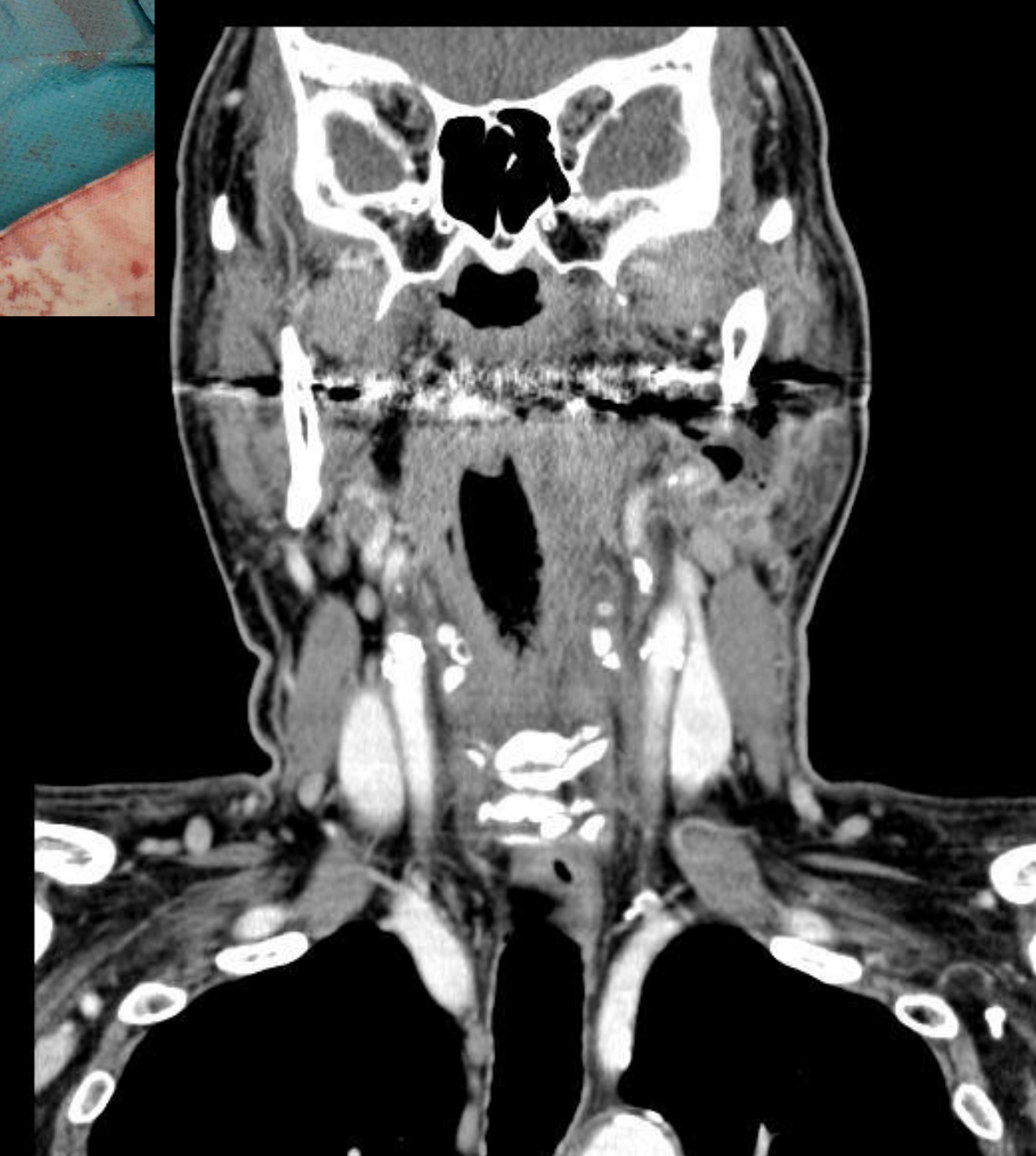
Post-op(1<sup>st</sup> I&D)  
Neck CT with C.E



Post-op photo



Post-op(2<sup>nd</sup> I&D) Neck CT with C.E  
: abscess cavity disappeared



## Conclusion

There is little data on the infection that occurred after non-invasive treatment, as many studies have not yet been made. In this patient, abscess progressed to the right inferior neck and above the left condyle.

It is assumed that the cause of this infection is that the bacteria around the implant with peri-implantitis spread to the deep space in the same way that emphysema occurs due to compressed air and water spray during re-cementation.

In general, dental infections are mainly from invasive treatments, but attention should also be paid to non-invasive treatments.