



Acute life-threatening Infections of the Head&Neck Region

Background:

Highly acute oro-dentogenic infections with rapid dissemination - like in the case of necrotising fasziitis (NF) or a phlegmonous deep neck infection (DNI) occur very rarely. However, they require immediate therapeutic intervention. Especially in the case when the immune system is weakened (diabetes mellitus, immuno-suppressive pathologies, etc.) they correspond with high morbidity and mortality.

Goals:

It is crucial to understand the disease progress and to be familiar with deep neck spaces and fascial planes. Despite advanced surgical treatment, deep neck infections and even more necrotising fasciitis can have poor outcome due to their common and potentially lifethreatening complications: airway obstruction, descending mediastinitis and sepsis.

Knowledge about fast treatment, airway security, efficient drainage, debridement and appropriate antibiotics is essential.









Methods:

Three exemplary cases were chosen to outline disease progression including life-threatening complications and therapeutic intervention.

Patient 1: DNI due to abscess with dental focus 37

Patient 2: NF due to necrotising cutaneous metastasis of a squamous cell carcinoma (SCC) originating at the bottom of the mouth.

Patient 3: NF with unclear focus in the head&neck region and immunosuppression due to DM type II











after first and second operatio

Patient 1 – CT scar



After being admitted to the emergency room all patients received full surgical therapeutic intervention (large scale debridement, airway security through tracheotomy, as well as extensive antiobiotic treatment). Despite immediate referral to the intensive care unit 2 out of 3 patients passed away.



Patient 3 - CT scan

Conclusion:

Even rapid and radical surgical intervention accompanied by antiobiotic treatment does not guarantee higher survival rates in case of NF and DNI. Early diagnosis is crucial. Despite this radical treatment the prognosis remains poor and has not improved significantly over the last 50 years. No evidence-based proof exists regarding the effectiveness of further adjuvant therapy options such as hyperbaric oxygentherapy. However, if available, they should be administered as ultima ratio.

- 2/hed 21/37. Necrotizing fascilis of the head and neck. Wolf H, Rusan M, Lambertsen K, Oween T. Necrotizing fascilis of the head and neck rowev of the literature and report of a case. Dale RA, Hoffmann DS, Crichton RO, Johnson SB. work K. Characterization and management of deep neck infections. Int J Oral Maxillofac Surg, 1997;261:31–134. of OH. Stachter RJ, et al. Craniconorcian encertising factilism: an 11-year experision. Dr. Stachter Strug, 2001;25:265–252. al necrotizing fascilis of odortogenic origin a case report and review of 12 cases. J Oral Maxillofac Surg, 2007;65:245–252. al necrotizing fascilis of odortogenic indexions report and review of 12 cases. J Oral Maxillofac Surg, 2007;65:345–552. I mediatinis caused by odortogenic indexions: report of two cases and review of literature. J Oral Maxillofac Surg, 1995;53:510–613. I mediatinis caused by odortogenic infections: report of two cases and review of literature. J Oral Maxillofac Surg, 1997;53:5203–208. I mediatinis caused by odortogenic infections and computed temporated undergradie in the disgonesis of maximum simulatis in mechanically ventilated patients. Crit Care Med. 2001;29:1337–1342. vate neck infections: prospective comparison between CT and MRI in 47 patients. J Comput Assist Tomogr. 2001;25:733–741.