

## Antibioprophylaxie et infection post-opératoire

ID: 404

### The Microbiological aspect of descending necrotizing mediastinitis

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#### Position du problème et objectif(s) de l'étude:

Descending necrotizing mediastinitis(DNM) describes a serious infective process that originates from the ENT sphere and spreads inferiorly into the mediastinum via connective-tissue planes (1,2). The mortality of DNM is high and reported to be between 15% and 30% (3). This management includes three main parts: surgical drainage, resuscitation and appropriate antibiotic therapy which depend on the bacteriological profile. The aim of this study was to establish a bacteriological profile of DNM.

#### Matériel et méthodes:

This was a retrospective study spread over eighteen years from 2002 to 2020; It included all patients admitted for a NDM in the anesthesia and intensive care department. We collected and analyzed the demographic, clinical, and therapeutic data.

#### Résultats & Discussion:

Our study included 41 patients with a median age of 51.4 years, 21 among them were diabetics, 22 were smokers and 15 patients received non-steroid anti-inflammatory drugs. The sex ratio was 2.25. The origin of the infection was dental in 20 cases.

The delay between the onset of symptoms and admission was a median of 8 days and the main reason for consultation was cervical swelling in 32 patients. The diagnosis was confirmed by the thoracic computed tomography.

Bacterial cultures were positive in 25 patients. Among them 11 were poly-microbial. We isolated 38 germs. The most frequent species were Streptococcus, Staphylococcus aureus and Klebsiella pneumoniae identified in 12, 11 and 4 cultures respectively. Multidrug resistant bacteria were isolated in 6 patients and the most common one was the extended spectrum  $\beta$ -lactamase producing Enterobacteriaceae identified in 3 cultures. The combination of cefotaxime, aminoglycoside and metronidazole was the most common therapy used in 23 patients.

#### Conclusion:

In most cases the germs involved have not been isolated or they are multibacterial infections; the bacteriological profile is that of the oral flora and the ENT sphere with predominance of streptococcus, staphylococcus and gram negative bacilli.

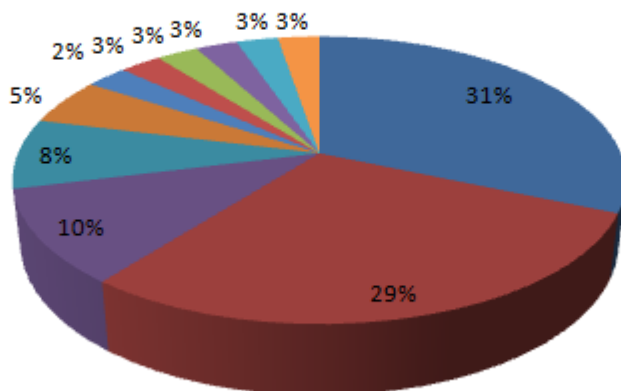
Therefore the first line probabilistic antibiotic therapy must take into consideration this bacterial flora. This study can serve as a basis for reflection for the optimization of the empirical treatment of NDM.

#### Références bibliographiques:

1. Surg Gynecol Obstet, 157 (1983), pp. 545-552
2. Head Neck, 38 (2016), pp. E2275-E2283
3. Ann Surg, 251 (2010), pp. 528-534

	Cases	%
Dental Abscess	20	50
Tonsillar Abscess	15	37.5
Retropharyngeal Abscess	1	2.5
Parapharyngeal Abscess	2	5
Cervical Adenophlegmon	2	5

- Streptocoques
- Staphylococcus
- Klebsiella pneumoniae
- Escherichia coli
- Enterococcus faecalis
- Acinetobacter baumannii
- stenotrophomonas Maltophilia
- Pseudomonas aeruginosa
- Haemophilus influenzae
- Enterobacter cloacae
- Proteus Mirabilis



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