



## EPIDEMIOLOGY AND MICROBIOLOGY IN PERITONSILLAR ABSCESS

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### SUMMARY

Peritonsillar abscess (PTA) is one of the most common complications of acute tonsillitis caused by penetration of the infection from the follicles and lacunae of the tonsils into the space between the tonsillar capsule and the upper pharyngeal sphincter muscle. The incidence is 10-45/100,000. It is diagnosed in patients of almost all age groups, most often in adolescents and young adults. The basis of treatment is early diagnosis, drainage of the abscess and administration of antibiotics.

### AIM OF THE WORK

The aim of the work was to evaluate retrospectively the incidence of PTA depending on the season, determine the microbial spectrum of PTA and its relationship to the age and gender.

### MATERIALS AND METHODS

A total of 966 patients were included in the monocentric observational study. The group consisted of 396 women (41 %) and 570 men (59 %) treated with tonsillectomy for PTA at the Dpt. of Otorhinolaryngology at the University Hospital in Pilsen in 2014 - 2018 (chart 1). Patients were divided into 3 groups according to age - children under 18 years, patients from 19 to 50 years and older than 51 years. The cultivated pathogens spectrum and the incidence of PTA depending on the season, age and gender were subjected to a retrospective analysis.

### RESULTS

- The incidence of PTA during the year does not show significant differences ( $p=0.3043$ ). The pathogen was found in 606 (63 %) patients. Aerobic bacteria were detected 542 times (75 %), anaerobic in 168 cases (23 %) and pathogenic fungi in 17 patients (2 %).
- In the group of patients under 18 years of age, aerobic bacteria predominated (78 %), anaerobic findings were found in 22 %, pathogenic fungi were not cultured. Pathogens of the *Streptococcus* played a significant role (31 % of findings) (chart 2).
- In the group of patients from 19 to 50 years of age, aerobic bacteria predominated (80 %), anaerobic findings were found in 18 %, pathogenic fungi were found in 2 %. Pathogens of the *Streptococcus* genus played a significant role (40 % of findings) (chart 2).
- In the group of patients over 51 years of age, aerobic bacteria also prevailed (61 %), the proportion of anaerobic flora was higher (35 %), pathogenic fungi were found in 4 %. Pathogens of the *Streptococcus* genus were found in 29 % of findings (chart 2).
- A statistically significant difference in the occurrence of agents depending on gender was demonstrated only for the bacterium of the *Fusobacterium* genus.

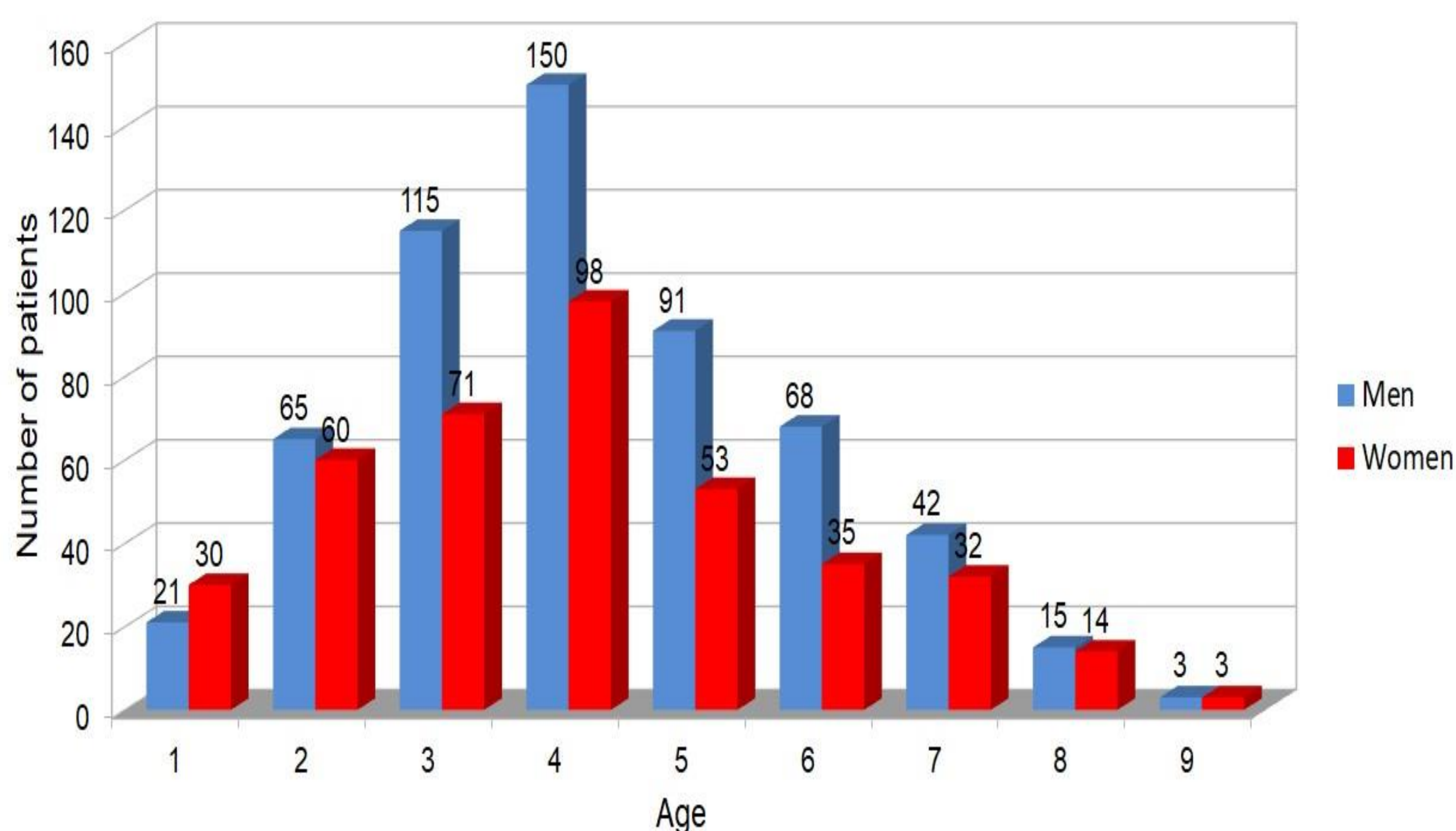


Chart 1 Demographic distribution of patients

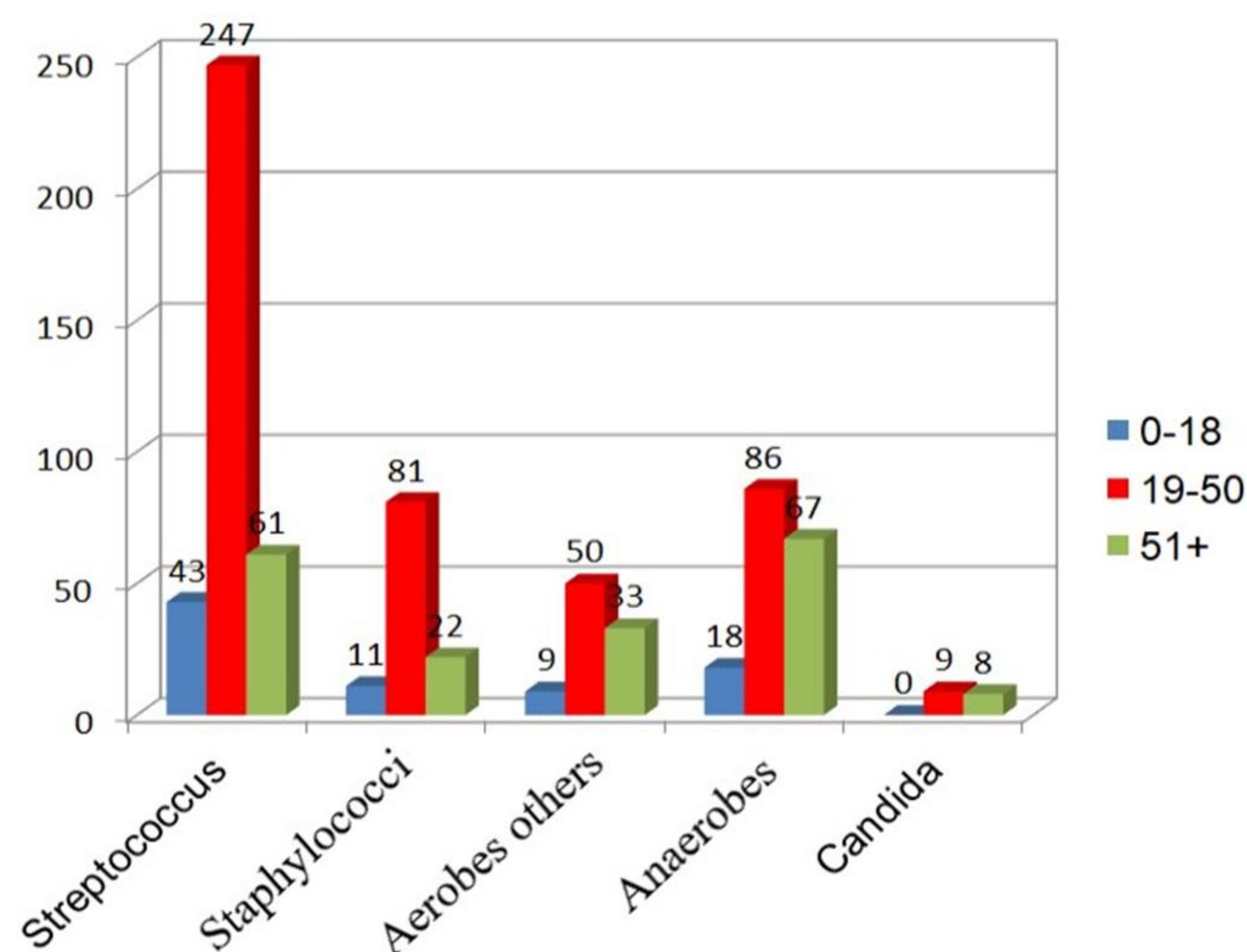


Chart 2 Microbial spectrum PTA by age

### CONCLUSION

- The incidence of PTA is not dependent on the season.
- We found aerobic, anaerobic bacteria and pathogenic fungi by culture; regardless of age, *Streptococcus* genus was the most numerous microbial. Pathogenic fungi were absent in the group of the youngest patients, and the incidence of anaerobic pathogens increased with age.
- We found a statistically different incidence depending on gender only for the *Fusobacterium* genus, but without clinical impact.