

PERITONSİLLAR ABSCESS CAUSED BY GEMELLA MORBILLORUM

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ABSTRACT

Gemella morbillorum is a gram positive, facultatively anaerobic coccus in normal flora of throat. There are several case reports due to *G. morbillorum* such as abscess of lung, septic shock, arthritis, meningitis and osteomyelitis, but peritonsillar abscess by this organism is seen very rarely. Here we report a 29 years old female. She admitted to clinic with peritonsillary abscess. Aspiration and abscess drainage were applied immediately.

G. morbillorum was grown from her abscess material.

She had a anemia and lower C4 counts. She responded well to antibiotics and supportive treatment. This case suggests that the member of normal flora sometimes cause serious infective diseases especially in immunodeficient patients.

• **Key Words:** Peritonsillary abscess, *Gemella morbillorum*, case. *Nobel Med 2010; 6(3): 95-97*

GEMELLA MORBILLORUM KAYNAKLI PERİTONSİLLER APSE

ÖZET

Gemella morbillorum, boğaz doğal florasında yer alan, Gram pozitif anaerobik bir koktur. İnsanda nadiren enfeksiyona yol açar. Genellikle immün supresif kişilerde yol açtığı bakteriyemi, akciğer apsesi, septik şok, endokardit, menenjit ve osteomyelite ilişkin olgu sunumları vardır. Bizim olgumuz 29 yaşında kadın hastadır.

Peritonsiller apse nedeni ile kliniğe yatırılan ve apse drenajı yapılan hastanın aspirasyon materyalinin incelenmesinde *Gemella morbillorum* etken olarak belirlenmiştir. C4 düşüklüğü ve anemisi bulunan hasta antibiyotik tedavisi ve destekleyici tedavi ile düzelmiştir. Bu olgu, doğal flora elemanlarının özellikle immun yetmezlikli hastalarda ciddi infeksiyonlara neden olabileceğini göstermektedir.

• **Anahtar Kelimeler:** Peritonsiller apse, *Gemella morbillorum*, olgu. *Nobel Med 2010; 6(3): 95-97*

INTRODUCTION

Peritonsillar abscesses (PTA) are collections of purulent material that develop between the tonsillar capsule and parapharyngeal muscle tissue, and are the most frequent complications of acute tonsillitis.¹ The most common bacteria isolated from abscess materials are *Streptococcus pyogenes*, *Peptostreptococci*, *Fusobacterium* spp. and *Prevotella* spp. respectively.² *Gemella morbillorum* is a catalase-negative, facultatively anaerobic gram-positive coccus that is a commensal microorganism of the upper respiratory and gastrointestinal tract. This bacteria was previously known as *Streptococcus morbillorum*. In 1988, its name was changed to *Gemella morbillorum* because of its DNA and 16S rRNA properties.³⁻⁵ Because it is a member of the normal human flora, its isolation from cultures usually accepted as contamination, but in some cases it may cause serious opportunistic infections.⁶ In the literature, cases of brain and hepatic abscess, meningitis, endocarditis, empyema, lung abscess, osteomyelitis, arthritis, peritonitis, shunt infections and endodontic infections associated with the *G. morbillorum* have been reported.^{3,4,7-12} PTA is a frequent complication of tonsillitis but it is rarely caused by *G. morbillorum*. In this report, we presented a peritonsillar abscess caused by *G. morbillorum*.

CASE REPORT

A 29-year-old woman was referred to our clinic for sore throat and dysphagia and a right peritonsillar abscess was observed with physical examination. She was in poor medical condition despite a lack of fever. Laboratory testing revealed a erythrocyte sedimentation rate (ESR) of 107 mm/h, C-reactive protein (CRP) of 15 mg/dl, white blood count of 9500 /uL, haemoglobin 11.1 gr/dl, Ig G 1760 mg/dl (751-1560), Ig M 159 mg/dl (46-304), C4 8 mg/dl (16-38), C3 79 mg/dl (79-152), ASO 429 IU/ml (0-200). Serum chemistry was normal and HBSAg, Anti HCV, and Anti HIV were negative. The aspirated purulent material was sent for microbiological examination and abundant polymorphonuclear leukocytes and gram positive cocci were seen on gram staining. Culture of specimen yielded, in pure culture, a Gram positive microaerophilic coccus, that was catalase negative. Further evaluation with the Vitek 2 system (bioMérieux, France) revealed that the bacterium was *G. morbillorum*. Identification was confirmed by using the API 32 Strep system (98% confidence; API System, bioMérieux). The antimicrobial susceptibility testing was performed with the Kirby Bauer disk diffusion method and the results were interpreted using the Clinical and Laboratory Standards Institute susceptibility criteria used for viridans group streptococci.¹³ The strain was susceptible to erythromycin, clindamycin, levofloxacin and vancomycin.

The abscess was drained and began to treat with intravenous clindamycin, 1200 mg/daily, supportive IV diffusion and non steroid antiinflammatory drugs. She improved gradually with the treatment and she was discharged from the hospital after five days. Laboratory findings after six months were ESR 43 mm/h, CRP 0.20 mg/dl, leucocytes 6630/uL, haemoglobin 13.1 gr/dl, RF <20.0 IU/ml, ASO 214 IU/ml, Ig G 1551 mg/dl, IgM 212 mg/dl, C4 14 mg/dl, C3 128 mg/dl, antinuclear antibody and antineutrophilic cytoplasmic antibody negative. Repeated throat swap was normal bacterial flora.

DISCUSSION

In the literature, cases of brain and hepatic abscess, meningitis, endocarditis, empyema, lung abscess, arthritis, osteomyelitis, peritonitis, shunt infections, endodontic infections, Ludwig's angina, mediastinitis, skin infections, retropharyngeal abscess, septic shock due to *G. morbillorum* were reported, but peritonsillar abscess by this organism is seen very rarely.^{3,7-12,14-16} Gavriel published eight *G. morbillorum* cases in 469 peritonsillar abscess, and reported that anaerobic pathogens were seen more commonly in recurrent PTA.¹⁷ In our patient, PTA was not recurrent and no recurrence was seen in her follow up. *G. morbillorum* generally causes opportunistic infections in patients with immune deficiency. C4 level in our patient was lower than normal, which is commonly seen in autoimmune disorders like systemic lupus erythematosus, rheumatoid arthritis, multiple sclerosis, and HIV infection.^{14,18} Testing for these disorders was negative in our case. The patient had no history of any immunosuppressive drug administration before PTA, for example corticosteroids. After 6 months of follow-up, C4 levels returned to normal and the panel of immune system was observed to be normal on flow cytometry. At the same time laboratory studies revealed normal ESR, CRP, ASO, and immunoglobulins level. These findings show resolution of disease. An important knowledge about history of our patient show that her family were a deep depression of psychologic and socioeconomically before PTA. For the medical treatment of PTA caused by *G. morbillorum* antibiotics like ampicillin or penicillin, clindamycin, rifampicin, and vancomycin can be used.^{3,4} In the literature, resistance against beta-lactam antibiotics, aminoglycoside, tetracycline and macrolides has been reported.^{3,19} Our patient responded well to clindamycin therapy.

CONCLUSION

In conclusion, we aim to attract attention *G. morbillorum*, which is an opportunistic pathogen that can cause PTA rarely. We also think that in infections caused by *G. morbillorum* or other opportunistic bacteria, patients should be investigated for immunodeficiency.





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