

## CUTANEOUS LEISHMANIASIS SECONDARILY INFECTED BY *GEMELLA HAEMOLYSANS*

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### SUMMARY

*Gemella haemolysans* is an unusual facultative anaerobic, gram-positive, coccoid-shaped organism and it appears to be normal flora of the oral cavity, upper respiratory, gastrointestinal and genitourinary tracts. Cutaneous leishmaniasis is an infectious disease caused by *Leishmania* parasite. We report a 20-year-old male patient with cutaneous leishmaniasis lesion, infected secondarily by *Gemella haemolysans*.

**Keywords:** cutaneous leishmaniasis, *Gemella haemolysans*

### ÖZET

#### Kutanöz Layşmanyazisin *Gemella haemolysans* ile Sekonder İnfeksiyonu

*Gemella haemolysans* nadir tespit edilen, fakültatif anaerob, Gram pozitif, kokoid şekilli bir organizmadır ve ağız boşluğu, üst solunum yolu, gastrointestinal yol ve genitoüriner yolu normal florasyonda bulunur. Kutanöz layşmanyazis, *Leishmania* parazitinin neden olduğu infeksiyöz bir hastalıktr. Bu makalede kutanöz layşmanyazis lezyonunun *Gemella haemolysans* ile sekonder olarak infekte olduğu yirmi yaşında bir erkek hasta sunulmuştur.

**Anahtar sözcükler:** *Gemella haemolysans*, kutanöz layşmanyazis

### INTRODUCTION

*Gemella* species are saprophytic microorganisms of the mucous membranes of humans. *Gemella haemolysans* is a facultative anaerobic, gram-positive, coccoid-shaped organism and has been observed infrequently<sup>(1,4)</sup>. Endocarditis, meningitis, endophthalmitis, pharyngeal abscesses, thorax empyema, spondylodiscitis have been reported that caused by *G.haemolysans*<sup>(4)</sup>.

Cutaneous leishmaniasis is an infectious disease that caused by a parasite belonging to the genus *Leishmania*. It spreads by the bite of female sandfly. *Leishmaniasis* is endemic in 88 countries including especially southern part of Turkey<sup>(5,8)</sup>.

We report a patient with cutaneous leish-

maniasis and infected secondarily by an unusual organism *G.haemolysans*.

### CASE REPORT

A 20-year-old man presented to Dermatology outpatient clinic with a lesion on his left arm. The lesion has been present since 1 year, but he had noticed an increase in erythema and swelling a few weeks ago. He also confessed that he scratched and irritated the lesion for the last few weeks. His medical history was otherwise unremarkable.

Dermatologic examination revealed an erythematous nodule about 3 cm in diameter on the left arm. He was in good overall health.

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Full blood count, liver and kidney function tests were normal. A smear was obtained from the lesion and it was positive for *Leishmania* parasites. A sample was also obtained for bacteriological examination. Preliminary Gram staining was performed for the sample. It was inoculated onto Colombia agar with 5 % defibrinated sheep blood (BioMerieux, Marcy l'Etoile-France) and incubated at 37°C for 24 h. Gram staining of the cultures showed gram positive cocci. Bacterial identification based on biochemical and automated methods (Rapid ID 32 Strep, BioMerieux, Marcy l'Etoile-France) indicated the growth of *Gemella haemolysans*. Susceptibility testing was performed with disk diffusion method using the National Committee for Clinical Laboratory Standards criteria<sup>(7)</sup>. *G.haemolysans* strain was found to be sensitive to levofloxacin, TM-SXT, clindamycin, gentamicin, chloramphenicol and amoxicillin-clavulanate.

Amoxicillin-clavulanate was started and continued for 2 weeks. Subsequently he was sent to Health Directory of Hatay Province for the treatment of cutaneous leishmaniasis.

## DISCUSSION

*G.haemolysans*, the type species of the genus was originally classified as a representative of the gram-negative genus *Neisseria*. However, numerous studies showed that the organism was biochemically incompatible with the genus *Neisseria*, and a new genus, *Gemella* was created<sup>(1)</sup>. The members of *Gemella* have been classified as *G.haemolysans*, *G.morbillorum*, *G.bergeri*, *G.sanguinis*, *G.palaticanis* and *G.cuniculi*. *Gemella* species appear to be normal flora of the oral cavity, upper respiratory, gastrointestinal and genitourinary tracts<sup>(3,6)</sup>.

Endocarditis is the most frequently reported systemic infection caused by *G.haemolysans*. Meningitis, endophthalmitis, pharyngeal abscess, thorax empyema, spondylodiscitis were other reported infections<sup>(4)</sup>.

Infection with *G.haemolysans* is generally associated with underlying conditions such as cancer, heart disease, sinusitis, poor dental condition, or previous invasive medical procedures<sup>(4)</sup>.

Our patient was immunocompetent and had no other systemic infection. Although cutaneous leishmaniasis has been present since one year, swelling had been occurred a few weeks ago possibly scratching the wound by the patient himself and it may be the reason for the secondary infection by *G.haemolysans*.

In conclusion, we document a case of cutaneous leishmaniasis secondarily infected by *G.haemolysans*. Although patients with cutaneous leishmaniasis may also infected with one or more pathogenic bacteria<sup>(2)</sup>, to the best of our knowledge, *G.haemolysans* has not been reported previously.

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