Canaliculitis due to *Gemella Haemolysans* and *Porphyromonas Asaccarolytica*

*Gemella Haemolysans* ve *Porphyromonas Asaccarolytica*’ın Neden Olduğu Kanalikülit

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**ABSTRACT**

**Objective:** We reported a canaliculitis case due to *Gemella haemolysans* and *Porphyromonas asaccarolytica*.

**Methods:** After the diagnosis of canaliculitis, the unusual finding of yellowish-greenish material supplied from canalicular curettage and canaliculotomy was sent to microbiology laboratory for the presence of aerobic, anaerobic bacteria and fungi. Systemic and topical antimicrobial treatment was administered.

**Results:** Bacteriological stains revealed polymorphonuclear leukocytes and gram-positive cocci. Facultative anaerobe *Gemella haemolysans* and anaerobe *Porphyromonas asaccarolytica* were identified according to bacteriological cultures. Routine cultures were negative for fungi. Recurrence was not observed at two years follow-up.

**Conclusion:** To our knowledge, this is the first reported case of canaliculitis due to both *Gemella haemolysans* and *Porphyromonas asaccarolytica* and is also remarkable ocular infection case occurred after any surgery and/or trauma.

**Key Words:** Canaliculitis, *Gemella haemolysans*, *Porphyromonas asaccarolytica*

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**INTRODUCTION**

Primary canaliculitis is a rare chronic disease usually caused by various aerobe and anaerobe microorganisms such as *Staphylococcus* and *Actinomyces* species. Primary canaliculitis accounts for 2% of all lacrimal diseases (1,2). Clinical findings are swelling and redness of punctum or canaliculus and also mucopurulent punctal regurgitation on palpation of the canaliculus. Although clinical findings are well defined, many cases can be misdiagnosed and easily omitted (3).

We reported a case of canaliculitis caused by *Gemella haemolysans* and *Porphyromonas asaccarolytica*.

**CASE REPORT**

A 84-year-old woman presented to our department with complaints of epiphora and mucopurulent discharge of the left lower eyelid. The clinical findings were redness and swelling of medial canthus and the lower lid, and also conjunctival hyperemia. Physical examination revealed mucopurulent punctal regurgitation with an unusual yellowish-greenish material on palpation of the canaliculus. The patient was referred to the department of oculoplasty as chalazion. According to existing findings a diagnosis of canaliculitis was made. There was no history of scratching caused by a dog, previous surgery, trauma, and punctum plug application.
Written informed consent was obtained from the patient. Canalicular curettage and canaliculotomy were performed, yellowish-greenish material was sent to microbiology laboratory for the presence of aerobic, anaerobic bacteria and fungi (Figure 1). At the end of the surgery cefuroxime axetil was used for canalicular irrigation.

DISCUSSION

Lacrimal canaliculitis is an inflammation of the canalicular system of the eye. Punctal pouting, eyelid swelling and redness, mucopurulent discharge, as well as in some cases sulfur granules, are well-defined clinical findings of primary canaliculitis. Hence, it is a rare disease; it may be misdiagnosed as conjunctivitis, mucocoele, dacyrocystitis, blepharitis, and chalazion (1,4). Our patient was also referred to oculoplasty department for pre-diagnosis of chalazion.

Various bacteria, fungi, and viruses can cause canaliculitis. Most commonly isolated microorganisms are Actinomycosis and Staphylococcus species (5). The bacterial etiology of the canaliculitis is still controversial. Some authors argue that the microbiology of primary canaliculitis does not appear to be evolving while others claim that the microbiological profile of canaliculitis is changing. Several different bacteria including Streptococcus spp, Propionibacterium species, Arcanobacterium haemolyticum or mixed bacteria were determined as the causal agents of canaliculitis beside the common species (3,6). Gemella haemolysans and Porphyromonas asaccharolytica were recovered from our patient. The first case of ocular infection caused by Gemella haemolysans which is a normal commensal organism found in the oral cavity and upper respiratory tract was reported by Ritterband et al. in a patient with keratitis and endophthalmitis (7). Infectious crystalline keratopathy, postoperative endophthalmitis after trabeculectomy and cataract surgery caused by Gemella haemolysans and Porphyromonas asaccharolytica were also reported (8,9).

The first case of a mixed infection with Propionibacterium gingivalis that are a part of the normal oral flora of several mammalian species was reported in 2004 by Rudolph et al. in an infiltrative keratitis patient scratched by his dog (10).

To our knowledge, this is the first reported case of canaliculitis due to both Gemella haemolysans and Porphyromonas asaccharolytica. Contrary to common agents, various microbiological agents causing canaliculitis should be observed.

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Gram and Giemsa stains revealed polymorphonuclear leukocytes and gram-positive cocci. The culture revealed facultative anaerobe Gemella haemolysans and anaerobe Porphyromonas asaccharolytica. Routine cultures were negative for fungi.

We continued systemic ampicillin-sulbactam 2×1 and topical fortified penicillin 100.000 U/ml 8×1 antibiotic treatments after the surgery for ten days. No recurrence was observed during the postoperative 2-year follow-up period.

Studies with longer follow-ups are needed to determine whether the course of canaliculitis due to Gemella haemolysans and Porphyromonas asaccharolytica is different from that of other causative agents.

Conflict of Interest
No conflict of interest was declared by the authors.

REFERENCES