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SFO COMMUNICATION

Medical management of a subretinal *Klebsiella pneumoniae* abscess with excellent visual outcome without performing vitrectomy☆

Prise en charge médicale d'un abcès sous-rétinien à Klebsiella pneumoniae *avec récupération visuelle sans recours à la vitrectomie*

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KEYWORDS
Klebsiella pneumoniae;
Endogenous endophthalmitis;
Sub retinal abscess;
Intravitreal injections;
Vitrectomy;
High field photography;
Good visual outcome

Summary
Objective. — To report the case of a *Klebsiella pneumoniae* endogenous endophthalmitis (KPEE) of hepatic and urinary origin that was successfully treated with systemic antibiotherapy and 13 intravitreal antibiotics injections without performing a vitrectomy.
Patient and method. — Case report of a 60-year-old man with a subretinal abscess in the left eye that developed 3 days after initial presentation for *K. pneumoniae* bacteremia, liver abscess and urinary tract infection.
Results. — Ophthalmic examination of the left eye showed anterior uveitis and a single subretinal abscess located in mid-peripheral temporal retina. BCVA dropped to 20/50. Follow-up was made with clinical examination and multimodal imaging (SD-OCT, FA, ICGA) with high field photographs. A total of 13 intravitreal injections (IVI) of ceftazidime were performed, and no vitrectomy was required. Ocular signs regressed and prognosis was excellent with 20/20 of final BCVA.

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Conclusion. — KPEE is a rare but severe condition with a typically poor ocular prognosis. When diagnosis is made early, subretinal abscess with partially conserved BCVA could be treated successfully with medical management that includes systemic antibiotics and repeated intravitreal injections without requiring vitrectomy.

MOTS CLÉS
Klebsiella pneumoniae ;
Endophtalmie endogène ;
Abcès sous-rétinien ;
Injections intravitréennes ;
Vitrectomie ;
Photographie en champ élevé ;
Bon résultat visuel

Résumé
Objectif. — Présenter un cas d'endophtalmie endogène à *Klebsiella pneumoniae* d'origine hépatique et urinaire traité avec succès par antibiothérapie systémique et 13 injections intravitréennes d'antibiotiques sans recours à la vitrectomie.
Patient et méthode. — Patient de 60 ans présentant un abcès sous-rétinien de l'œil gauche diagnostiqué 3 jours après une bactériémie, un abcès hépatique et une infection urinaire à *K. pneumoniae*.
Résultats. — L'examen ophtalmologique retrouvait une uvéite antérieure aiguë associée à un abcès sous-rétinien localisé en moyenne périphérie temporale. L'acuité visuelle corrigée chutait à 20/50. Le suivi reposait sur l'examen clinique et l'imagerie multimodale (SD-OCT, FA, ICGA) et les rétinophotographies grand champ. Au total, 13 injections intravitréennes de ceftazidime ont été réalisées sans recours à la vitrectomie. Les signes cliniques régressaient et le pronostic visuel était excellent avec restitution d'une acuité visuelle corrigée de 20/20.
Conclusion. — L'endophtalmie endogène à *K. pneumoniae* est une pathologie grave grevée d'un mauvais pronostic visuel. Quand le diagnostic est porté rapidement et que l'acuité visuelle est correcte, un traitement médical associant antibiotiques systémiques et intravitréens peut être réalisé sans recours à la vitrectomie.

Case report

A 60-year-old man without prior medical history presented to our hospital for headache and fever for 4 days. Except for an elevated body temperature (39 °Celsius), physical examination was unremarkable. Bloodwork was consistent with previously unknown diabetes mellitus. Lumbar puncture was normal. Blood and urine cultures identified a multisensitive *Klebsiella pneumoniae*. Thoraco-abdominal CT and MRI allowed identification of a liver abscess measuring 32 × 37 mm without any renal abscess (Fig. 1). The patient was initially treated with both ceftriaxone and amikacin administered intravenously.

On day 3, the patient complained of redness and visual impairment of his left eye. The best-corrected visual acuity (BCVA) was 20/32 in the left eye and 32/32 in the right eye. Anterior slit lamp examination showed a perikeratic circle associated with a non-granulomatous anterior uveitis with 2+ cells and flare. No posterior synechiae, keratic precipitates or ocular hypertension were noted. Fundus examination revealed a moderate vitritis and a single subretinal abscess located in the mid-peripheral temporal retina. The abscess was sharply demarcated, had a yellowish coloration, and was surrounded by retinal hemorrhages and arterio-venous vasculitis. Fundus examination, SD-OCT and fluorescein angiogram did not reveal disc or macular edema. Wide field fundus photography (Optomap®, Optos, North America) was performed for the follow-up (Fig. 2). Examination of the fellow eye was unremarkable (Fig. 3).

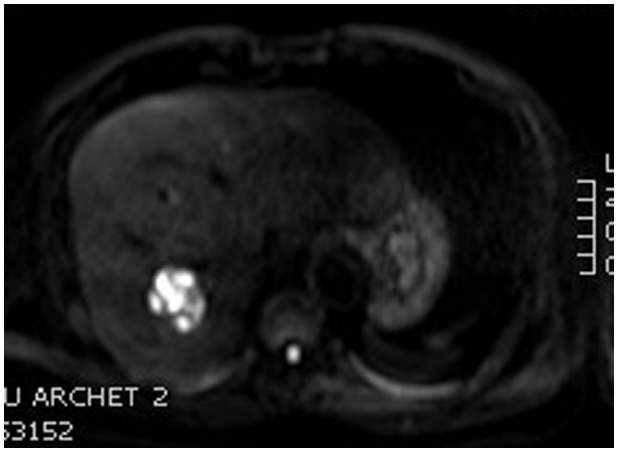

Figure 1. MRI showing a liver abscess measuring 32 × 37 mm.

We decided to switch the initial antibiotic therapy to systemic fluoroquinolone (levofloxacin 500 mg intravenously 2 times a day) because of its better ocular penetration.

Two days later, BCVA worsened (20/50), and wide field fundus photography demonstrated an increase in the size of the subretinal abscess (Fig. 4). Three intravitreal injections of 2 mg ceftazidime were performed 48 hours apart. Each intravitreal injection was preceded by an anterior chamber