A pneumonia leading to blindness

Yvonne Nussbaumer-Ochsner,1 Barbara Katharina Hasse,2 Christophe Valmaggia,3 Martin Krause4

DESCRIPTION

A 56-year-old man with oesophageal/pyloric stenosis after a suicide attempt with toilet detergent was treated with tazobactam/piperacillin followed by oral levofloxacin for aspiration pneumonia in the right lower field. Seven days later, bilateral chemosis and conjunctival hyperaemia developed (figure 1), followed by right eye blindness and reduced light perception in the left eye. A sinus thrombosis or sinusitis was excluded by CT scan. Diagnosis of bilateral endophthalmitis was made followed by left pars plana vitrectomy, intravitreal vancomycin/cefazidime and parenteral ceftazime application. Blood and vitreous cultures revealed *Klebsiella pneumoniae*, fully sensitive to levofloxacin. Vitreous cultures were only intermediately susceptible to tazobactam/piperacillin in contrast to blood cultures. After 4 weeks, pan-endophthalmitis subsided without visual recovery. During the course, evisceration of the amaurotic right eye was necessary due to secondary glaucoma.

Endogenous endophthalmitis results from the haematogenous spread of bacteria or fungi to the eye from an infectious focus at a distant site.1 It is a medical emergency requiring vitrectomy, and administration of intravitreal and systemic antibiotics targeting the cause of bacteraemia. In Asia, Gram-negative organisms are most common (*Neisseria meningitidis, Haemophilus influenzae, Escherichia coli* and *Klebsiella* spp), while for the majority of cases outside Asia, Gram-positive organisms are responsible (*Streptococcus* spp, *Staphylococcus aureus* and *Bacillus* spp). Low intravitreal drug concentrations after systemic administration facilitate the development of antibiotic resistance and may explain only intermediate susceptibility to tazobactam/piperacillin in the vitreous cultures in our case. Diabetes mellitus is the most common risk factor, and was also present in our patient. Even with adequate treatment and early recognition, visual prognosis is poor.

Learning points

- Endogenous endophthalmitis results from the haematogenous spread of bacteria or fungi to the eye as a consequence of an infectious focus at a distant site. It is a clinical diagnosis that is confirmed by positive aqueous or vitreous cultures.
- The term endophthalmitis refers to intraocular inflammation predominantly involving the vitreous cavity and the anterior chamber of the eye. Contiguous ocular structures such as the retina or the choroid may also be involved.
- Endophthalmitis is a medical emergency. Treatment should include vitrectomy with intravitreal injection of antibiotics and systemic antibiotics targeting the cause of bacteraemia. Even when adequate treatment is established, early visual prognosis for patients is generally poor, leading to blindness in the affected eye.

Contributors All authors have seen and approved the manuscript. YN-O was responsible for selecting data and manuscript writing. BKH, CV and MK were responsible for reviewing the manuscript.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

Copyright 2015 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit http://group.bmj.com/group/rights-licensing/permissions.

BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Become a Fellow of BMJ Case Reports today and you can:
► Submit as many cases as you like
► Enjoy fast sympathetic peer review and rapid publication of accepted articles
► Access all the published articles
► Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow