Transient bilateral cortical blindness as a presenting symptom of infective endocarditis

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Infective endocarditis is frequently complicated by neurological manifestations caused by cerebral emboli; also, cerebral infarction, arteritis, abscesses, haemorrhage, mycotic aneurysms, cerebritis and meningitis have been reported. Bilateral blindness occurring during infective endocarditis is extremely rare: only a few case reports describe lasting blindness on the basis of metastatic panophthalmitis [1], multiple cerebral infarctions [2] or ruptured occipital mycotic aneurysms [3].

We recently saw a 20-year-old woman who was referred with complaints of fever and headache for 2 days and blindness with only some light perception after waking on the day of referral. No other non-visual neurologic symptoms were present. On admission, the patient was alert and appeared moderately ill; her temperature was 39.5°C, blood pressure 120/80 mmHg and pulse rate 80/min. Visual acuity of the right eye was 1/60 and the left eye 3/300. The ocular fundi showed bilaterally a few peripheral haemorrhages and ‘Roth spots’, but were otherwise normal. Further physical examination revealed a typical Janeway lesion in the palm of the hand; in addition, splinter haemorrhages in the nail bed and conjunctivae were noted. The lower legs showed several small pustules with signs of scratching, which may have been the portal of entry for bacterial invasion. On auscultation of the heart an apical holosystolic murmur was heard. Because staphylococcal sepsis with endocarditis was suspected, antibiotic treatment with fluocxacillin and gentamicin was instituted. Cerebral CT imaging on admission and 48 h later showed no abnormalities.

Echocardiography and transesophageal imaging revealed a large vegetation on the anterior mitral leaflet; the leaflets themselves and the left atrial and ventricular chamber dimensions appeared normal. Because of the multiple embolic episodes, the patient underwent surgery the same day. The anterior commissure revealed large vegetations of 1 to 1.5 cm with a loose end hanging in the mitral ostium. The mitral valve was replaced by a prosthesis. Cultures of blood, liquor, skin lesion and mitral valve all showed growth of Staphylococcus aureus, sensitive to methicillin, but resistant to penicillin. The following day after the patient was detubated and fully awake, her vision had become completely normal. The clinical course was complicated by a cardiac tamponade for which open drainage was necessary. Recovery thereafter was uneventful. Repeated ophthalmological examination did not reveal any abnor-
malities. Computed perimetry several weeks later did not show any field loss. Apparently, the transient blindness in this patient was caused by cerebritis due to vasculitis in the occipital region caused by staphylococci. Neurological manifestations are not typical for \textit{S. aureus} and can be caused by a number of micro-organisms. This case history underscores that a sudden neurological event in a young person, including bilateral blindness, should suggest infective endocarditis.

References

