Endogenous Presumed Bacterial Endophthalmitis of the Right Eye Following Cellulitis of the Right Leg

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Background: We report a case of Endogenous presumed bacterial endophthalmitis of the right eye in a 26-year-old male adult following an aggressive cellulitis of the right leg.
Case Report: A 26-year-old healthy young adult, not a known diabetic had an accidental nail puncture injury to the sole of his right foot. Five days later he developed swelling of the that foot and leg associated with severe pain and fever. He was diagnosed with cellulitis of the right leg and septicaemia and was commenced on intravenous antibiotics in a private clinic. He developed ocular pain, redness and diminution of vision in the right eye five days after diagnosis of the cellulitis but was only attended to five days later by the ophthalmologist. He was acutely ill-looking and toxic patient with temperature of 38.6°C. On musculoskeletal examination, there was extensive sloughing of the skin of the right leg and foot with exposed calcaneum of the foot (Figure 1). The

Fig. 1: Shows sloughing of the skin of the right leg and exposed calcaneum

visual acuity was No light perception (NLP) in the right eye and 6/9 in the left eye. The lid was moderately ptotic with mild purulent discharge, moderately diffuse conjunctival injection with chemosis; there were multiple nodule-like protrusions on the sclera (intraocular abscess). The cornea was oedematous with no evidence of ulceration. There was total hypopyon precluding further evaluation of the eye (Figure 2). The left eye was essentially normal. Blood culture done using Thioglycolate and Tryptone soya broth media yielded no bacterial growth. Vitreous and anterior chamber tap for culture using Thioglycolate and

Fig. 2: Shows total hypopyon and multiple scleral nodules (abscesses)

Tryptone soya media yielded no bacterial growth. He was managed as a case of overwhelming septicaemia secondary to Ascending Cellulitis of the Right leg and Endogenous endopthalmitis of the Right eye. He received broad spectrum antibiotics-IV Ceftrioxone 1g 12 hourly, IV metronidazole 500mg 8 hourly, IV Gentimycin 80mg 8 hourly, IV Ciprofloxacin 200mg 12 hourly.

Fig. 3: Shows resolution of the hypopyon and intraocular abscess

With 15 days of systemic antibiotics, the ocular findings resolved. The eye became pthisical on follow-up (Figure 3).

Discussion: Generally, blood cultures are the most frequent means of establishing diagnosis of Endogenous endophthalmitis.[1-2] However, in this case the blood culture did not yield any growth. We strongly presumed bacterial intraocular infection in this case because of the satisfactory response of the patient to intravenous antibiotics. Jackson *et al*[2] in their review of 267 reported cases from different regions of the world showed that gram negative bacteria were common in Asian while gram positive bacteria were common in North America and Europe. Uhumwangbo and Osaguoma[3] reported a mixture of Candida and Haemophilus species in their only reported case in Benin City, Nigeria. Endogenous Endophthalmitis is associated with poor visual prognosis because of delayed diagnosis and intervention as noted in this case[2,4]. Systemic antibiotics are said to be more valuable in endogenous endophthalmitis than in postoperative or traumatic endophthalmitis and that intraocular antibiotic injection and vitrectomy make only a limited contribution to its successful treatment[5].

Conclusion: Endogenous endophthalmitis is associated with poor visual prognosis and early intervention is the only sure way to improve visual outcome.

References

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