Case Report :

BILATERAL ENDOGENOUS BACTERIAL ENDOPHTHALMITIS SECONDARY TO PNEUMONIA IN AN AIDS PATIENT

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INTRODUCTION

Endogenous or metastatic endophthalmitis is a very rare sever form of ocular disease which is uncommon now-a- days. Prevalence of endogenous bacterial endophthalmitis is 2-8% of all cases of endophthalmitis[1]. Mostly it is associated with chronic disease like diabetes mellitus, renal failure, liver abscesses, prolong placement of catheter, IV line or central venous line, drug abusers and immunocompromise patients. Gram +bacteria are the most common causative organism of the endogenous bacterial endophthalmitis[1].

A few cases of endogenous bacterial endophthalmitis due to klebsiella pneumonias, a gram -ve organism have been documented and majority of them were in Taiwan [2-7]. K. pneumonia endophthalmitis is associated with diabetes mellitus and hepatic abscesses can be bilateral and resulted into poor visual outcome [2-7]. K.pneumonia pneumonia has been reported most frequently from patients with alcoholic liver diseases and one of the common cause of acute osteomyelitis and septic arthritis [10,11] In this scenario we report the case of a Malawian in African Continent who developed bilateral endogenous bacterial endophthalmitis after suffering from pneumonia in immunocompromise state.

PURPOSE; to report a case bilateral endogenous endophthalmitis secondary to pneumonia in an AIDS patient

DESIGN; Observational case report

METHODS; A patient with bilateral pain full red eye with diminution of vision was seen in consultation by ophthalmology.

RESULT; with clinical characteristic and laboratory diagnosis of sputum and blood conformed the causative agent for pneumonia and endophthalmitis is K.pneumonia.

CONCLUSION; it is unusual disease , required early detection and prompt treatment.

CASE REPORT

A 32 years old male referred to eye department for consultation with history of 2 days bilateral painful red eye associated with reduced Visual acuity in the first week of November 2009. He was admitted in medicine indoor in Kamuzu Central Hospital for high-grade fever and productive cough since 10 days Patient was a known case of HIV positive and under treatment since 4month. He was a fieldworker in tobacco farmhouse suffered from acute cough followed by gradually increase fever and dysponea by which he was admitted in the hospital. He had been treated for K. pneumonia after sputum and blood sample culture and sensitivity by intravenous ceftriazone 1gm and

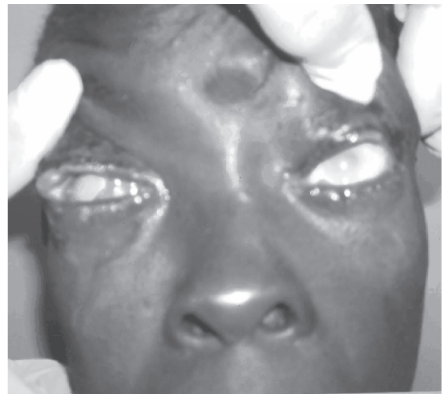

Figure 1 - *Showing bilateral ocular features of K. pneumonia endophthalmitis.*

amikacin 10mg/kg/day 8 hourly. The patient's general condition had just improved by the time the ophthalmic consultation was requested.

Initial best corrected visual acuity was CF 2meter in RE and 4 meter LE with pinhole no improvement. On ocular examination bilateral peri orbital redness associated with severs conjunctival chemosis and injection **(fig-1).** On slit lamp examination there was bilateral sever exudative anterior uveitis (cell 4 plus and flare 4 plus) and bilateral posterior synechia formation. Funduscopy demonstrated bilateral sever vitritis. After two day on ultrasound of both eye revealed vitreous was filled with dense organized inflammatory exudates associated with marked thickening of the chorio-retinal layer. The reflectivity of the ocular coat is reduced bellow 60% due to the presence of edema and inflammatory exudates in the ocular coat. Bilateral vitreous aspirates were performed with an intravitrial injection of vancomycin hydrochloride 1 mg and amikacin 400 microgram in 0.1ml diluted each with normal saline followed by subconjunctival injection of ceftazidim 100mg and amikacin 25mg and dexamethason sodium phosphate 6mg with normal saline. Then 2nd and 3rd dose of subconjunctival injection repeated every 24 hour interval. No organism was isolated from vitreous samples. The previous intravenous antibiotic regimen was continued to which 100mg of dexamethason and 500mg ciprofloxacin bid dose added. Then anterior uveitis was treated with moxifloxacin, tobramycin and atropine eye drop at frequent interval.

After 8 days there was increase pain, congestion, peri- orbital edema of right eye with restriction of movement in all direction. Vision was PL doubtful and in ultrasound revealed an irregular hypo echoic rim around the outer wall conformed endophthalmitis progress into tenon's space leading to panophthalmitis and treated by enucleation.

After 14 days the vision of left eye improved to 6/60.The peri- orbital edema and redness was subsided in both eyes. In LE the cell and flair is reduced and iris edema decreased. there was reduction of vitritis(2 plus cells).Patient was discharged with ciprofloxacin 750mg BID dose for other 14days and topical medication with usual doses for 8 week. At 2 month follow up, vision of LE was 6/24 with PH 6/18 and right socket managed by artificial eye made the face cosmetically beautiful?

COMMENT

Majority cases of endogenous bacterial endophthalmitis are caused by gram +ve bacterimias in patients with existing chronic illness or injecting drug abuse [1]. More number of cases caused by the Gram –ve organism K.pneumoniae has been reported from Taiwan where it is a main cause of pyogenic hepatic abscess. So K.pneumoniae endophthalmitis secondary to hepatic abscess are more likely to have diabetes mellitus [2, 6, 8]. It is also true some cases reported with out diabetes mellitus [2, 4, 6, 7.] The organism is carried in the respiratory tract of about 10% of normal people, who are prone to pneumonia if host defense is lower [12].

In our case patient is chronically ill by acquired immunodeficiency syndrome so already he is in immunocompromise state. This may be drug resistance case for opportunity infection by which Klebsiella species done devastating complication like bilateral endophthalmitis from pneumonia through blood route. The progression of infection was so rapid we could not cure the right eye, in other word due to our prompt management we were able to preserve the vision of the left eye.

The benefit of intravitreal antibiotic in endogenous bacterial endophthalmitis is unproved but potential benefits outweighed the risk in our patients who suffered from bilateral infections [1, 3,6,7] Visual prognosis is poor in K. pneumonia endophthalmitis with 90% reported eyes having visual outcome of counting finger

or worse [2,4,6]. Therefore the prompt diagnosis and aggressive treatment is very important for particular bilateral endophthalmitis cases.

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