Case Report

Endogenous Endophthalmitis Associated with Snake Bite

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A 50 years old patient with snake bite presented with endogenous endophthalmitis, was thoroughly investigated and treated. Various ocular complications with snake bite have been reported before but endogenous endophthalmitis due to snake bite has not been described in literature.

Endophthalmitis is a serious sight threatening condition. It may be of exogenous or endogenous origin.

The incidence of endogenous endophthalmitis is 2-8%[1].

Endogenous endophthalmitis caused by snake bite is rare although uveitis due to anti snake venom has been reported in literature[2].

Whatever the cause may be, the consequences of endophthalmitis are very serious. Despite appropriate therapy it results in severe visual loss in 30% patients and blindness in 18%[3].

We hereby report a case of endogenous endophthal-mitis that presented after snake bite and was treated optimally.

CASE REPORT

A 50 years old patient presented to Eye OPD with complaints of defective vision and pain in right eye for 3 weeks. He had history of snake bite 4 weeks back. The bite was on index finger of left hand. He remained admitted in medical ward with heamaturia. His prothrombin time (PT) and activated partial thromboplastin time (APTT) were prolonged. He was successfully treated with medications and blood transfusion. There was no history of snake anti venom being used.

On ocular examination visual acuity in right eye was perception and projection of light, Pupil was reactive, anterior chamber was quite, vitreous had +4

cells. Right fundal reflex was absent. On ophthalmo scan there was vitreous haziness and retina was flat in right eye. Left eye was normal. Vitreous tap was negative for red blood cells and bacterial culture. A diagnosis of endogenous endophthalmitis was made. Patient was treated with topical quinolones, steroids and cycloplegics eye drops. Systemic anti inflammatory, antibiotics, and intra-vitreal steroids plus vancomycin were given. The visual acuity improved to counting finger from 1 meter by the time this case report being prepared.

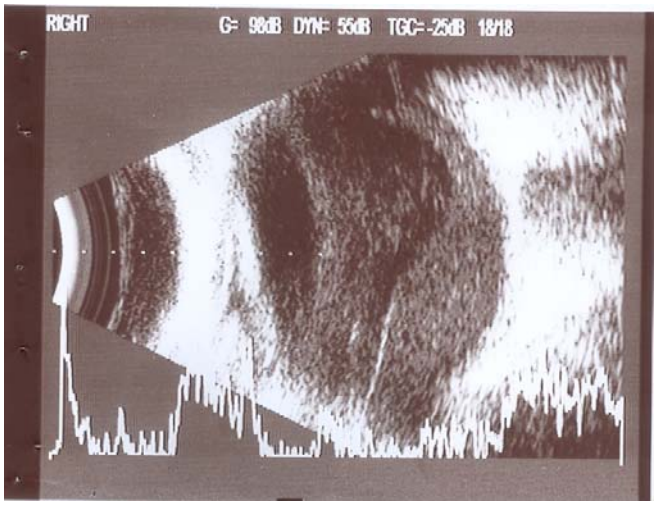
DISCUSSION

Various ocular complications due to snake bite have been reported in literature but endogenous endophthalmitis has not been described.

Snake bite is a common problem in Pakistan causing 20000 deaths per year. Snake venom causes multisystem involvement and affects haemostatic mechanism as it can produce intravascular coagulation with consequent ischemic sequel to many organs[4]. The ophthalmic manifestations reported are subconjunctival hemorrhages, hyphema, vitreous hemorrhages, neurological disturbance in the form of ophthalomplegia and central retinal artery occlusion[5]. The uveitis and retinal necrosis have been reported due to anti snake venom[6].

Endogenous or metastatic endophthalmitis can occur with any systemic disease like dental infections, ear infections, birth deliveries, renal diseases, vascular diseases and tuberculosis.

Endophthalmitis is a potentially devastating intra ocular infection. Despite all modalities of treatment, the visual prognosis is poor, even preservation of eye ball is difficult and 29-50% of cases eyes has to be eviscerated or enucleated[7,8].



Ophthalmo scan showing endogenous endophthalmitis

Right eye endogenous endophthalmitis (White Pupil)

Our patient was diagnosed as a case of endogenous endophthalmitis. He was treated optimally.

The outcome in this case was satisfactory and the patient is improving with eyeball preserved and some near vision retained.

CONCLUSION

Endogenous endophthalmitis may present in association with snake bite. Early optimal treatment can yield good results.

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REFERENCE

1. **Sigersma JE., Klont RR.** Endogenous endophthalmitis after otitis media. AJ Ophthalmol 2004; 137: 202-4
2. **Ari AB.** Patient with purely extra-ocular manifestations from pit viper snake bite. *Mil. Med.*, 2001, 166, 667-9.
3. **Randal J.** Reducing risk of post operative endophthalmitis Survey of Ophthalmol. Vol 49; March 2004; 55-9.
4. **Marsh NA.** Snake venom affecting haemostatic mechanism- a consideration of their mechanism, practical applications and biological significance. Blood coagul. Fibrinolysis, 1994**,** 5, 399-410.
5. **A Bhalla** Central retinal artery occlusion: An unusual complication of snake bite. J.venom. anim. Toxin incl. Trop. Dis., 2004, 10, 3, p.314.
6. **Buttes GP., Ayan N., Cami G.** Uveitis after snake bite. *Arch. Pediatr., 1996, 3, 832-3.*
7. **Cheese SP.** Endogenous endophthalmitis. Curr Opin Ophthalmol 2001; 12: 464-70.
8. **Tsai YY., Tseng SH.** Risk factors in endophthalmitis leading to evisceration/ enucleation Ophthalmic surg. Laser 2001; 32: 208-12.