Retraction

Retracted: An Unusual Case of Bilateral Vitreous Haemorrhage following Snake Bite

Case Reports in Medicine

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Case Reports in Medicine has retracted the article titled “An Unusual Case of Bilateral Vitreous Haemorrhage following Snake Bite” [1]. The article was found to contain a substantial amount of material from the following published articles: “Bhalla, A. et al., “Central retinal artery occlusion: an unusual complication of snakebite,” *Journal of Venomous Animals and Toxins Including Tropical Diseases*, Botucatu, vol. 10, no. 3, pp. 311–314, 2004, doi: 10.1590/S1678-91992004000300009”; “Jae Seok Kim et al. “Coagulopathy in patients who experience snakebite,” *Korean Journal of Internal Medicine*, vol. 23, no. 2, pp. 94–99, 2008, doi: 10.3904/kjim.2008.23.2.94”; “Tungpakorn, N., “Unusual visual loss after snakebite,” *Journal of Venomous Animals and Toxins Including Tropical Diseases*, Botucatu, vol. 16, no. 3, pp. 519–523, 2010, doi: 10.1590/S1678-91992010000300020”; and “Rao, B. M., “A case of bilateral vitreous haemorrhage following snake bite,” *Indian Journal of Ophthalmology*, vol. 25, no. 1-2, 1977. <http://www.ijo.in/article.asp?issn=0301-4738;year=1977;volume=25;issue=2;spage=1;epage=2;aulast=Rao>.”

References

- [1] V. Bhandari and M. Lohia, “An unusual case of bilateral vitreous haemorrhage following snake bite,” *Case Reports in Medicine*, vol. 2013, Article ID 640582, 2 pages, 2013.

Case Report

An Unusual Case of Bilateral Vitreous Haemorrhage following Snake Bite

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A 45-year-old man presented to us with diminution of vision in both eye following snake bite. On examination vision in the right eye (RE) was 6/36 and vision in left eye (LE) was hand movement positive and fundus examination revealed a subhyaloid haemorrhage, left eye showed vitreous haemorrhage. Patient was advised bed rest, vitamin C tablets and oral steroids.

1. Introduction

Snake bites are common in tropics, increasing during the summer and rainy seasons. Complications are local or systemic. Common systemic problems can be neurologic or haematological. Ocular disturbances are rare, except for injury to the cornea or conjunctiva directly exposed to the venom [1]. In this case report, we present a rarely reported ocular complication of snakebite.

2. Case History

A 45-year-old man reported to our outpatient department with complaints of diminution of vision in both eyes, left eye (LE) more than right eye (RE) since 20 days, following snake bite.

He was bitten by a snake while working in farm 1 month back. Type of snake was not known. He experienced severe burning pain at the bite site in left leg, he was treated with antivenom, details of which are not known to patient. Later he was diagnosed with coagulopathy and acute renal failure. Metabolic acidosis was acidemia caused due to metabolic reasons and this was found to be less than 22 mmol/L of HCO_3^- on the arterial blood gas study. The number of leukocytes increased to over 10,000/mm³ [2] in the whole blood because

of an inflammatory response. Serum creatine kinase level was over 1,000 IU/L and myoglobin level over 110 ng/mL due to rhabdomyolysis, and acute renal failure as the level of serum creatinine was over 1.3 mg/dL without a history of chronic renal disorder. Hemolysis that destroyed erythrocytes inside the blood was diagnosed as the serum haptoglobin level was less than 40 mg/dL. Magnetic resonance imaging (MRI) showed bleed in left cerebellar hemisphere and vermis with bleed in both lateral ventricles. The time period between intra cranial bleed and vitreous haemorrhage was about 14 days.

On ocular examination vision in the RE was 6/36 not improving and in the LE hand movement positive close to face. Slit lamp biomicroscopy showed pupil was 6 mm dilated, not reacting to light with iris atrophic patches and blue dot cataract (Figure 1), in the LE pupil was 4 mm dilated, not reacting to light with blue dot cataract (Figure 2). There were bilateral ptosis and ophthalmoplegia, anisocoria may be attributed to cranial nerve involvement. Intraocular pressure was 20 mmHg in the RE and 16 mmHg in the LE. On fundus examination in the RE there was subhyaloid haemorrhage and LE showed vitreous haemorrhage (Figure 3). Patient was advised strict bed rest, Vitamin C 500 mg tablets once daily for a month. Prednisolone 40 mg tablets daily for one week, tapering to 10 mg and stopping it. At one-month follow up he was systemically stable, MRI showed clearing haemorrhage

FIGURE 1: right eye showing iris atrophic patches.

FIGURE 2: Iris atrophic Patches and 6 mm pupil.

in his left cerebellar hemisphere; vision in right eye was 6/36 with clearing subhyloid haemorrhage and left eye vision was 1/60 with clearing vitreous haemorrhage.

3. Discussion

Snake venom is a complex mixture of several enzymes and proteins, toxic polypeptides, and inorganic components. It contains numerous toxins, and their combined action has a more potent effect than that of their individual effects. In general, venoms are described as either neurotoxic or hematotoxic. Systemic manifestations of snakebites depend on specific toxins that constitute the venom [3]. Viper acts mainly on blood and blood vessels. Toxic vasculitis caused by certain species of viper can lead to a thrombotic tendency. Hypercoagulation can be due to procoagulants in the venom, such as arginine, esterase and hydrolase, and consumption coagulopathy phase—DIC. Hyperviscosity caused by hypovolemia may also contribute. Any inherent deficiency of protein C, protein S, and antithrombin III may manifest too. Haemorrhagins are complement mediated toxic components of Viperidae snake venom. They may result in severe vascular spasm, endothelial damage, and increased vascular permeability, which cause vascular occlusion and limb gangrene. Previous blood vessel abnormalities may also contribute to the injury. The resultant damage to major organs has been reported to affect the haematological, renal and, uncommonly, cardiovascular or neurological systems. Large vessels occlusion could be the reason for the affection of these major systems. Ocular complications are rare and uncommon. However, the commonest ocular problem described

FIGURE 3: Fundus photo of right eye and left eye showing vitreous haemorrhage.

for snakebite is a neurological disturbance in the form of ophthalmoplegia. Other ocular problems described for snakebite range from keratomalacia to vitreous haemorrhage, uveitis, unilateral or bilateral optic neuritis, globe necrosis, and visual loss due to cortical infarction [3]. In this case, the patient had subhyloid haemorrhage and vitreous haemorrhage correlated with the snakebite. Vitreous haemorrhage in this case could have been due to the following factors (a) The venom acts on blood and blood vessels resulting in widespread haemorrhages. (b) Haemopoietic disease as a result of snake bite-like severe anaemia, thrombocytopaenia purpura, and so forth, may have given rise to a retinal haemorrhages which percolated into the vitreous. (c) Duke Elder mentions “In cases of subarachnoid Haemorrhage the rupture of a subhyaloid haemorrhage may result in a considerable infiltration of the vitreous” among the causes of vitreous haemorrhage [2].

References

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