

Eye Trauma Caused By A Monkey Bite

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Abstract

Monkey is highly adaptable live in varying landscape settings to different habitats include the tropical rainforests and also inhabit villages and towns in cities in Southeast Asia. Eye Trauma caused by Monkey Bites is rare often in a zoo, public park for tourists. This case is one of the cases that we met in emergency eye injury at the provincial hospital in the Mekong Delta, Vietnam. A woman when approaching a common squirrel monkey that bit at her face immediately caused an eye trauma with laceration of upper lid and eyeball. This eye trauma patient that had been treated and follow-up after 20 years with good vision as well as good quality of life was reported. Eye trauma due to monkey bites causes avoidable blindness and the public should guard against it. People need to pay attention when closing the domestic monkey to avoid unfortunate accidents as well as should not keep the wild animal.

Keywords: eye trauma; laceration; upper eyelid; eyeball; monkey bite.

1. Introduction:

Monkeys are highly adaptable live in varying landscape settings to different habitats include the tropical rainforests and also inhabit villages and towns in cities in Southeast Asia. [1][2]. Eye Trauma caused by monkey bites is rare often in a zoo, public park for tourists.[3]. After many years, monkeys were the animal species immediately following dogs and cats in the official report of the Zagreb Antirabies Clinic, which was quite surprising. Usually, monkey bites and injuries do not present a serious problem in daily routine because they occur sporadically.[4]. The risk in travelers remains unknown.[5][6] Management of lesions helps the patient a good result in vision and in the quality of life [7] This case is one of the cases that we met in emergency eye injury at the provincial hospital in the Mekong Delta, Vietnam. A woman when approaching a common squirrel monkey that bit at her face immediately caused an eye trauma with laceration of upper lid and eyeball. This eye trauma patient that had been treated and follow-up after 20 years with good vision as well as good quality of life was reported. Eye trauma due to monkey bites causes avoidable blindness and the public should guard against it. People need to pay attention when closing the domestic monkey to avoid unfortunate accidents as well as should not keep the wild animal.

2. Case Report (fig.1 attach)

Our Patient: A 34-year-old woman patient: In the countryside, the squirrel monkey was caught by the hunters and was a domestic animal. One day previous hospital admission, the patient came closer to the monkey that was eating. The monkey suddenly bit on her right eye. She cried because of severe pain with bleeding in her eye. She had been bandaged the wound by a health care worker of the village. The day after, her relative brought him to the hospital for treatment. At Ophthalmology Department of the provincial hospital: Overall status = Good contact. Height 1.55 meters, Weight 50kg. Pulse 75/min. Arterial tension 120/70 mmHg. Ocular examination revealed: The right eye= Upper eyelid was torn 2,5 cm, exposed the frontal bone at the central position and perpendicular eyebrow. The eyeball is laceration at frontal sclera 1 cm, the cornea is light erosion, the conjunctiva is congestion, the anterior chamber is clear. The fundus is normal VA 6/18. Left eye: normal. VA 6/6. Intraocular both eyes were 17mmHg. PCR of Herpes Zoster (-)

Management injured eye:

Right Eye: wash out the debris such as sand, dust..., from the eyelid to eyeball. Suture eyelid with 2 layers by separated sutures. The running sutures are used for the scleral wound. Explain to the patient about the trauma eye caused by monkey bites. Cephalixin plus gentamycin by intravenous injection was done. The patient received Human Rabies Vaccines on days 0, 3, 7, and 14 (immune-compromised patients should receive the 5th dose on day 28. Periocular injection with dextancyl suspension 0,5 ml in RE was used every 3days in hospital admission. After discharge follow-up VA, IOP, fundus for a week, months, years were monitored.

One year later: Both eyes VA 6/6 and IOP 17mmHg. For 20 years later: RE=Opacity of crystalline VA RE=6/18. LE=6/9. IOP both eyes=17mmHg

Discussion: This case is one of the cases that we met in emergency eye injury due to the wild animal as ocular perforating injury caused by pecked stork at the provincial hospital in the Mekong Delta [8]. In Vietnam, many monkeys are where ecotourism, for example, monkey island in Can Gio, Saigon, or zoo, public park. At the Mekong Delta South of Vietnam, this squirrel monkey was caught by the hunters and became a domestic animal. As babies, these big-eyed, furry creatures may seem harmless. But once they reach sexual maturity, experts warn, monkeys can become aggressive. Therefore when someone coming near to a monkey, which can be caused a wound to him/her by a biting or scraping by monkey hands. An unusual case of eye injury from monkey bites can be prevented or when it happened the management is important for restored vision as the quality of life.

Management injury eye: Wound care: Using soap, a concentrated solution of detergent, povidone-iodine, or chlorhexidine, and water to cleanse the exposed area by thoroughly washing and scrubbing the area or wound, and then irrigate the washed area with running water for 15-20 minutes [7]. Prevention: Rabies post-exposure

prophylaxis: Unless the monkey can be euthanized and tested rabies post-exposure prophylaxis should be administered as follows: Human Rabies Immune-Globulin on day 0, plus a series of Human Rabies Vaccines on days 0, 3, 7, and 14 (immune-compromised patients should receive 5th dose on day 28 and subsequent titer check [7].

The injured eye became infected eye with purulent intraocular agents such as Streptococcus, Staphylococcus, Bacillus, Pseudomonas ... too difficult in medical therapy for eye conservation.

Depending on the type of ocular injury, either a pressure patch or shield patch should be applied. Multiple controlled studies conducted by accredited organizations such as the American Academy of Ophthalmology have shown that pressure patching is of little or no value in healing corneal abrasions and is actually detrimental to healing in some cases. Pressure patching should never be used on an individual presenting with a corneal abrasion that has a history of contact lens wear. In this circumstance, a virulent infection caused by the Bacterium, *Pseudomonas aeruginosa* is at a clearly delineated increased risk for occurrence. These infections can cause blindness within 24 – 48 hours and there is a possibility that the infection can move into the peri-orbital socket, resulting in the need for the evisceration of the eyeball. In rare cases, the infection can enter the brain and cause death to the patient. If a shield patch is applied to one eye, the other eye should also be patched due to eye movement. If the uninjured eye moves, the injured eye will also move involuntarily possibly causing more damage. The systemic analgesics, antibiotics, and tetanus, padding of the injured eye, and immediate consult to an ophthalmologist should have been initial attention [9]. This patient is living far from the tertiary health care level so the patient was admitted to the hospital lately after 24 hours. Our patient did not use any virus drugs. Steroids local such as drop, periocular injection (dectancyl suspension) on their examination one week, one month, 3 months, six months and every years after. Glaucoma, the opacity of crystalline, uveitis...with visual acuity, intraocular pressure, and fundus were periodically monitored. Quality of life: The period of follow-up of our patients post-trauma in this paper was between 20 years. When she had this trauma she became a volunteer worker in Pagoda Buddha The patients are continuing to work, to participate in all activities in the community. All of these as a part can be a reason to make the patients decreasing worry about their disability. From that to now, her living is well with the quality of life is good. Despite a developing country the quality of life index of Vietnam is ranged from 60 in 2018 [10].

3. Conclusion:

This case is one of the cases that we met in emergency eye injury due to a wild animal at the provincial hospital in the Mekong Delta. An eye trauma was reported after 20 years of follow-up with her vision is well and her quality of life is good. Monkey biting eye trauma causes avoidable blindness and the public should

guard against it. People need to pay attention when closing the domestic monkey to avoid unfortunate accidents as well as should not keep the wild animal.

Declaration of Interests: The author states that he has no conflicts of interest to declare.

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