

## EYE INJURIES – FIRST AID

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### ABSTRACT

**Introduction:** Injuries of the eyes are one of the most common reasons for monocular impaired vision and blindness. They are many and varied and when the measures taken are inadequate and not timely the prognosis is bad. Due to the fact that a lot of eye structures are damaged the adequate first aid and treatment are crucial for the final result.

**Aims and tasks:** Analysis of the readiness and knowledge of general practitioners and patients for responding to eye injuries.

**Materials and methods:** A telephone inquiry was conducted on 23 GPs and 45 patients selected randomly. Questions were given concerning reaction and response in specific situations.

**Results:** General practitioners show an average level of readiness for dealing with eye injuries. In part of the situations they react adequately and give practical advice to patients during telephone consultations. Knowledge for self and mutual aid of patients is insufficient. Most of the questioned do not know how to react during a possible eye injury.

**Conclusion:** The average level of readiness of GP and low such of patients show us a need for improved cooperation between them, enriching health literacy by promotional and educational activities.

**Keywords:** *General practitioner, eye injury, first aid*

**Introduction:** Eye injuries are uncommon. The structure of the face helps protects the eyes, each eye is set in a protective socket and the lids can close quickly providing a protective barrier. [1,2,18] Since most damaging agents are in the line of sight the person also can react accordingly. Physical or chemical injuries to the eye can pose a serious threat to vision. Each injury carries a risk, even a small corneal scratch could lead to eye loss if there is a superimposed infection. Any damage to the cornea, vitreous or lens could lead to opacification. [6,9,13] Any injury if not treated appropriately or in a timely fashion they can severely damage the eye making them one of the most common reasons for monocular impaired vision and blindness. The types of injuries are many and varied and when not treated properly the prognosis is bad. Due to the fact that a lot of eye structures are damaged the adequate first aid and treatment are crucial for the final result.[7,11,17]

**Aims and tasks:** Analysis of the readiness and knowledge of general practitioners and patients for responding to eye injuries.

**Materials and methods:** A telephone inquiry was conducted on 23 GPs and 45 patients selected randomly. Questions were given concerning reaction and response in specific situations when an eye trauma occurs.

### **Results:**

General practitioners were asked how they would react to physical injuries (cutting, piercing, blunt) burns (acid, base, heat). When asked about physical types of injuries results show adequate reaction. In case of cutting or piercing wound 20 (86.9%) of the interviewed would clean the damaged zone or appendages and place a sterile bandage, 18 (78.2%) would use antibiotic drops and 19 (82.6%) analgesic drops. Unfortunately only 5 (21.7%) would place tetanus vaccine. The results with blunt trauma are similar, with 19 (82.6%) GP saying they would clean the damaged area and 22 (95.6%) saying they would place a sterile bandage, again only 5 (21.7%) would place tetanus vaccine. The use of antibiotic and analgesic drop is the same as cutting and piercing wounds 18 (78.2%) and (82.6%). Results from the question with a foreign body in they eye are not good, with 10 (43.4%) of the general practitioners saying they would try to remove the foreign body

themselves it is visible. If it is not visible 7 (30.4%) would send their patients home with a prescription for antibiotic or analgesic drops, saying that the foreign body will wash out. Only 13 (57.6%) will send the patient to an ophthalmologist and 5 (21.7%) of them will give the patient analgesic drops beforehand. None of the asked would place a bandage over the eye. The situation is even worst when burning injuries are involved. While the larger part (19 – 82.6%) know that base burnings are more dangerous than acid ones, only 13 (57.6%) know that placing a sterile bandage over the burn is contraindicated. Again almost none of the general practitioners would place a tetanus vaccine (5 – 21.7%) and only 15 (65.2%) would use antibiotic or analgesic drops. There is a fear in the general practitioner that cleaning the burned would lead to an infection or additional damage so only 15 (65.2%) would clean the eye. When asked when they send the patient to a specialist ophthalmologist 5 (21.7%) answer that unless it is a seemingly dangerous would they would not, 8 (34.7%) would send them immediately and 10 (43.4%) answer that they would decide according to the situation.

Patients were asked similar question about physical and chemical wounds and what their reaction would be. What kind of self and mutual help they would apply. The results from all the questions show a very low level of health literacy. When physical wounds are involved, unless they are severe, 34 (75.5%) of the inquired would try self treatment with any eye drops they could buy, 8 (17.7%) would go to their general practitioner and only 3 (6.6%) would go directly to an ophthalmologist. If the self treatment does not work in 4-5 days most of the 34 trying it would consult with their GP. During the talks we established that patients are more concerned with foreign bodies since they cause constant pain and discomfort in the eye. Again there is a large percentage that would try self treatment (20 – 44.4%), but it is significantly lower than with other physical injuries. If self treatment does not work all of them would consult their GP. Same as with the general practitioners almost all of the interviewed did not know what to do in case of burning type eye trauma, 12 (26.6%) answer they will wash the eye with water, 14 (31.1%) would place a bandage on it and the rest would go directly to a physician. All of the asked would search for a physician immediately no matter their initial reaction. When asked who they would turn to in case of eye injury 34 (75.5%) would turn to their general practitioner and the rest (11 – 24.5%) would turn to an ophthalmologist.

**Conclusion:** The average level of readiness of GP concerning physical wound to the eye is average with most of the asked cleaning the area and applying a sterile bandage and prescribing antibiotic and analgesic drops. [3,8,15] Unfortunately when chemical burns are involved general practitioners are inadequately prepared. Nearly half of them would apply a bandage to the wound, a third would not clean or wash the burned eye, the same third are not going to use an antibiotic or analgesic drops. [4,10,16] That combined with the fact that only 21.7% know that tetanus vaccine should be used creates a very dangerous situation for the patient should he happen upon such a general practitioner. The situation with the patients is even worst than with the general practitioners. Health literacy is very low. Most of the patients have no idea how to react to different types of eye injuries on them or how to help others. [5,12,19] Still almost all of the interviewed would eventually turn to their general practitioner. As the first step in the healthcare system the general practitioner has a responsibility to divide the patient according to the severity of the eye problem. As such the general practitioner should know that any eye injury, no matter the type, should be consulted with an ophthalmologist. [14,20,21] The lack of knowledge for some basic steps in response to eye injuries, in both general practitioners and patients shows us a definitive need for improved cooperation between GPs, patients and ophthalmologist, a need for promotional and educational activities and courses.

**Literature:**

1. .,, ” 2008 , ” ”

