ISSN: 2692-5206
AMERICAN ACADEMIC PUBLISHER
INTERNATIONAL JOURNAL OF MEDICAL SCIENCES

SEVERE EYEBALL CONTUSIS AND CORNEAL PERFORATION INJURY (CLINICAL CASE)

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Abstract. This 39-year-old in the article male in the patient eye of the apple heavy level contusion and horn curtain piercing past injury with together colorful curtain output status presented The patient house under the circumstances in the drill while working right iron wire tattoo on the eye with enter gone. Urgent diagnosis put; primary surgery processing Done. On time. shown medical help as a result the patient's see ability partially preserved This is the clinical situation urgent ophthalmological approach and surgery intervention relevance shows.

Keywords: Eye injury, contusion, horn curtain, colorful curtain, surgery intervention, open globular injury.

Relevance of the study. Eyeball piercing past injuries in ophthalmology heavy complications brought issuer from cases one Especially the horn curtain through internal structures out departure with passing injuries the patient's see to the possibility directly threat solid. This type injuries of sight noticeable loss and injury in the field infection to increase take arrival possible [1,3,6,8]. Research this shows that such in injuries temporary delay many in cases endophthalmitis (internal eye infection) and traumatic proliferative the risk of vitreoretinopathy (PVR) increases. 24 hours delayed primary surgery intervention patients between endophthalmitis the risk almost 2.5 times increases [2,4,5,7]. In time diagnosis put and rush surgery intervention see ability save in staying and recovering main role plays. Below cited clinical situation this the idea again one there is confirms.

The purpose of the study: Analysis of the effectiveness of urgent diagnosis and primary surgical intervention in preserving vision and preventing complications in open eyeball injuries in a clinical case.

Materials and methods : This clinical Tashkent city on June 21, 2025 under observation Urgent fast medical help clinical to the hospital appeal did, right eye of the apple heavy level contusion and horn curtain piercing past injury diagnosis 39-year-old male patient participation The patient 's history, physical and ophthalmological examination results, as well as ultrasound examination (B- scan) data based on evaluated. Primary surgery processing was held. From the practice then patient 8 days during stationary under observation became, dynamic evaluation and conservative treatment continue was carried out.

Clinical situation Definition: Patient Age : 39 years old. Gender : male. Occupation : private businessman. Came Time : June 16, 2025 7:00 PM. Complaint : Right eye redness packing bleeding to rejuvenate and brighten to see.

Anamnesis : Patient from the word on 16.06.2025 at 11:00 a.m. at home, in the drill a piece of iron wire while working for nothing right to the eye scattered. From there after in sight pain, vision of sharpness sharp decline and eye inside of the liquid outside exit felt. Patient Tashkent city Urgent fast medical help clinical to the hospital appeal as came and rushed accordingly hospitalization was done.

Status locales : Visus =OD 0.02. Not corrected ; OS 0.9. Intraocular pressure = OD T-1. OS 18.0 mm wire. OD - Pumpkin a little swollen conjunctiva hyperemia, blepharospasm, rejuvenation mixture injection, horn curtain para optic in the field 4-5 mm puncture at 16-00

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past injury, wound from the field colorful curtain out, previous camera shallow, fluid dim hyphaema 2.0mm, pupil wrong in the form reaction slow
OD - eye bottom : front camera dullness because of not visible.

OS - Front parts quiet, horn curtain clear, front camera medium, fluid clear, pupil reaction 3.0 mm saved. gem clear, eye bottom : KND open pink, border clear, veins tuft in the center, the arteries are narrow, the veins full-fledged, net curtain thinned

Of the eye ultrasound inspection Conclusion OD (B scan) - vitreous in the body average homogeneous in character blurs. Back hyaloid curtain separation. Net curtain owns in place, not moved.
16.06.2025 - year. General blood analysis : blood coagulation time - 3.40-4.00 sec, Erythrocytes (RBC) - 4.4 10^12/L, Leukocytes (WBC) - 7.1 10^9/L, Hemoglobin (HB) - 138.0 g/l (16.06.2025) - 16.06.2025 - Alcoholic drinks – ABS.
Diagnosis : OD - Eyeball heavy level contusion. Horn curtain piercing past injury. Injury from the field colorful curtain output with.
Recommendation : OD. Fast horn curtain piercing entered complicated to the injury primary surgery processing practice transfer
Treatment. OD. Horn curtain piercing entered complicated to the injury primary surgery processing.

ISSN: 2692-5206
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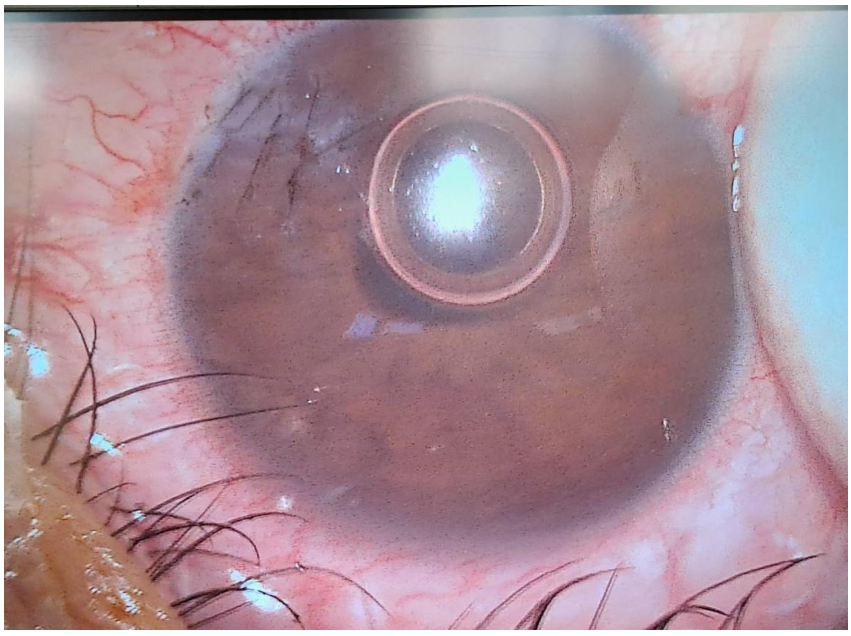
OD. Pumpkins and its around on the skin processing iodine with given. Anesthesia retrobulbar Sol. Lidocaine 2% 2 ml. Bleforostat. Horn curtain injury field physiological solution with diluted with antibiotics solution with washed. From the wound out standing colorful curtain micro spatula to the front camera using reposition was done. To the injury step by step step 10/0 thread with 5 stitches with knot was placed. Paracentesis at 09-00 done increased and front camera physiological solution and sterile air with restored, filtration abs. Under the conjunctiva Sol. Dexamethasone 0.4% 0.5ml was instilled. Disinfectant, antibiotic solution was instilled. Monocular aseptic bundle was put.

Result. 8 days after surgery passing by the patient's status positive towards changed : Default based on treatment treatments acceptance did, corneal edema decreased, injury stitches adapted, filtration abs, infection status not observed. Intraocular pressure stabilized. View capacity up to 0.04 restored (later cataract development probability available). Treatment plan at the RIKMIATM clinic on the basis of continue delivered

Patient from the station when exiting : General condition satisfactory condition active, body temperature normal, conscious in place, skin and visible mucus floors normal. Peripheral lymph nodes not enlarged. Breast cage cylindrical, Breath in receiving both side one kind participation It will. In the lungs two one-sided rough vesicular Breathing. Heart sounds. hoarse, rhythmic. Pathological noises not detected, ABP 120/80 mmHg, Pulse 80 beats per minute. Liver not enlarged, spleen not enlarged, double- sided pasternatsky test negative. Bone and muscle system unchanged

Status localis : VIS=OD -0.04/OS 0.9 KIB Tn/Tn. OD- Light conjunctival injection, horn curtain swelling in dynamics ask started, horn curtain paraoptic in the field injury at 4:00 p.m. adapted, filtration abs, sutures in place clean, front camera liquid clear, sterile air, pupil wrong in the form of, reaction weak, eye bottom details clear not visible. OS Front parts quiet, horn curtain clear, front camera medium, fluid clear, pupil reaction 3.0 mm saved. gem clear, eye bottom : KND open pink, border clear, veins tuft in the center, the arteries are narrow, the veins full-fledged, net curtain thinned.



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Transferred laboratory and instrumental studies and related experts conclusions General analysis urine 17.06.2025 Urine yellow Urine transparency-turbid Relative density - 1014mmol/l Reaction-kis Protein - avs g/l Squamous epithelium - 2-3 in p/ zr Leukocytes - 4-5v p/ zr Slime + salt + kris match kis +.

General blood analysis 23.06.25 Hemoglobin (HB)-146 g/l Erythrocytes (RBC)-4.4*10^12/L Color index -0.89 Erythrocytes average volume (MCV)-90 in 1 erythrocyte hemoglobin (MCH) (MCH)-29.2 Erythrocyte hemoglobin concentration (MCHC)-324 g/l RBC distribution width (%) (RDW-CV)-13% Hematocrit (HCT)-43.2% Platelets (PLT)-178*10^9/L Platelets average Platelet volume (MPV) - 8.7μm³ Anisocytosis (RDW)-16.6 Thrombocrit (RST)-0.13% Leukocytes (WBC)-4.5*10^9/L Neutrophils (Bacillus) Nucleated)-2 Neutrophils (Segmented Nucleated)-50 Eosinophils (EOS%)-1% Monocytes (MON%)-9% Lymphocytes (LYM%)-38% ECHT (erythrocyte drowning speed)- 5 mm/h 16.06.2025 - salt - kris match kis +., Urine Color - yellow, Leukocytes - 4-5 in / ml, Relative Density - 1014 mmol/l, Urine transparency - cloudy., Reaction - acidic., Protein - avs g/l, Squamous epithelium - 2-3 v p/ zr, Mucus - +. 06/23/2025 - Color index - 0.89., Monocytes (MON%) - 9 %, Neutrophils (Segmented Nucleated) - 50., Neutrophils (Rod Nucleated) - 2., Platelets (PLT) - 178 10^9/L, Platelets average volume (MPV) - 8.7 μm³, Platelets Anisocytosis (RDW) - 16.6., Erythrocytes (RBC) - 4.4 10^12/L, Erythrocyte hemoglobin concentration (MCHC) - 324 g/l, RBC distribution width (%) (RDW-CV) - 13 %, Hemoglobin (HB) - 146 g/l, Erythrocytes average volume (MCV) - 90 fL, Hematocrit (HCT) - 43.2 %, 1 red blood cell hemoglobin (MCH) - 29.2 pg, Thrombocrit (RST) - 0.13 %, Leukocytes (WBC) - 4.5 10^9/L, Lymphocytes (LYM%) - 38 %, Eosinophils (EOS%) - 1 %, ECHT (erythrocyte drowning speed) - 5 mm/h

Discussion. Eyeball open contusions and horns curtain piercing past injuries often see function sharp decrease, intraocular structures injury, infection to the risk and the next complications - cataract, traumatic iridodialysis, retinal damage take comes. In the literature such in cases primary surgery 6 hours after the intervention without delay execution see ability save while staying important factor as shown (Kuhn F. et al., 2002; Zhang Y. et al., 2020). This clinical in case in the patient colorful curtain output, hyphen and prefix camera blurring to be regardless, on time done washing, repositioning and microsurgical stitches as a result see ability partially preserved This is the this of the situation diagnostic and treatment in their approaches relevance shows. News as this highlight this is necessary in case simple technician under the circumstances heavy level to the injury fast and accurate approach with minimally invasive, but clear done surgery practice the patient's eye function to restore service did. Rangdor with a prolapsed diaphragm in cases sometimes to enucleation take incoming complications to the surface it comes out, but this in the patient conservative storage approach successful It was. This of the situation from the restrictions one eye bottom initially assessment possibility It may not have been. Complete analysis and long long-term monitoring cataracts and other late complications early determination for necessary.

So, it’s open. in injuries the patient fast delivery, operation delay and microscopic surgery to the technique compliance to do through even heavy vision even in injuries ability save stay possible. Clinical in practice such situations doctors for warning experience as service to do, medical skills to improve encouragement need.

Conclusion. This clinical situation this proves that : primary surgery 24- hour work inside (most) preferably — 12–24 hours in) when performed, especially with uveal prolapse late heavy globular in injuries, vision function saves stay opportunity noticeable at the level increases.

ISSN: 2692-5206
AMERICAN ACADEMIC PUBLISHER
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Endophthalmitis danger from 24 hours delayed low in surgery, meta- analysis resulting in odds ratio = 0.39 organization will reach.
Every 24 hours late final viewing level LogMAR It worsens by 0.37.
This patient in the case of urgent diagnosis insertion, washing, and microsurgical surgery intervention because of see ability again restored, this practical skills and the world to the recommendations suitable accordingly successful done increased. This situation in ophthalmotraumatology speed, accuracy assessment and correct surgery of the technique importance again one there is proves. From injuries follow-up monitoring, rehabilitation and follow-up problems in advance determination patient health to keep service does.

References

1. Andreoli MT, Andreoli CM. Surgical predictors of visual outcome in open-globe eye injuries: a retrospective analysis. Ophthalmology. 2011;118(8):1640–1646. https://doi.org/10.1016/j.ophtha.2010.12.029
2. Blanch RJ, Bindra MS. Management of open globe injury: a narrative review. Eye (London). 2024. https://doi.org/10.1038/s41433-024-03197-6
3. Blanch, RJ, & Bindra, MS (2024). Management of open globe injury: a narrative review. Eye, https://doi.org/10.1038/s41433-024-03197-6
4. Guan W, Gao X, Zhao F, Li S. Ocular trauma during the COVID-19 pandemic: a systematic review and meta-analysis. BMC Ophthalmol. 2023;23(1):112. https://doi.org/10.1186/s12886-023-02854-x
5. K uhn F, Morris R, Witherspoon CD, Mann L. Epidemiology of blinding trauma in the United States eye injury registry. Ophthalmic Epidemiol. 2006;13(3):209–216. https://doi.org/10.1080/09286580600690342
6. Upadhyay S, Behera HS, Bhattacharya K. Eye injuries: understanding ocular trauma. J Clin Ophthalmol. 2023;76(4):201–208. https://doi.org/10.1016/j.jco.2023.03.002
7. Wu Z, Zhang Y, Wang H. The top 100 cited articles in ophthalmic trauma: A bibliometric analysis. Ophthalmic Res. 2020;64(5):321–332. https://doi.org/10.1159/000509845
8. Zhang Y, Zhang M, Jiang C, Qiu HY. Prognostic factors of open globe injuries: a retrospective study. Int J Ophthalmol. 2017;10(5):803–808. https://doi.org/10.18240/ijo.2017.05.17