



## Poster Presentations

PP - 01

### Management of ocular chemical burns in Tarapur

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**Objective:** Ocular exposures to chemicals can induce severe burns or even disabling injuries. Improving management of these patients is of high concern.

**Methods:** Present study compares results obtained from different first aid managements. During 22 months period (June 2015-April 2017), 99 cases of ocular chemical burns were registered. Water used by patient himself within first 10 minutes after exposure on site. Polyvalent hypertonic amphoteric solution used 20 minutes after exposure upon arrival at clinic. When both rinsing solutions used, water was used within 10 minutes after exposure and polyvalent solution after 30 minutes. Clinic being situated only 10 minutes away from industrial area, some patients came to clinic without first rinsing with water at accident site. Statistical analysis was performed.

**Results:** After 22 months study, 99 cases were registered. 100% of the patients are men. 34 cases rinsed with water only on site. 39 cases rinsed with polyvalent solution only. 26 cases with water first and polyvalent solution upon arrival at clinic. 6 months into the study, we noticed some criteria could help improve the comparison. They were introduced from December 2015 till April 2017 (67 cases):

- Pain factor upon arrival versus pain when leaving clinic
- Visual acuity upon arrival versus visual acuity when leaving clinic

In the last part of the study we noticed less and less victims were coming to the clinic without any prior first-aid on site. Therefore we have been recording more and more cases where both water on-site and a polyvalent solution at the clinic were used, which allowed us to see an interesting trend in the results: work loss, pain and loss of visual acuity was significantly decreased when polyvalent solution was used after water and even more so when an earlier rinsing with polyvalent solution only was performed (20 minutes). No patient demonstrated any side-effects or allergic reaction after using polyvalent solution.

**Conclusion:** These results show that chemical burns classical management can be significantly improved.