Ocular toxicity of Unit Dose Liquid Laundry Detergents: A Case Report

INTRODUCTION: Unit Dose Liquid Laundry Detergents (UDLD) are water soluble capsules containing 15/32 mL of highly concentrated cleaning agents. Between 1 August 2010 and 31 October 2012 the Milan Poison Control Center collected 1,143 cases of exposure to unit dose liquid laundry detergents. 156 cases (14%) were ocular contact. We describe an ocular exposure with prolonged clinical effects.

CASE REPORT: A 40 year old female attempted to separate two unit dose liquid laundry detergents from their container. One of the units broke and the contents splashed into her right eye. Ocular pain developed immediately. She rinsed the eye thoroughly with water presenting to the hospital emergency department (ED) about 1 hour after exposure. In ED, she was in obvious distress. Examination showed localized periorbital edema, lacrimation, ocular hyperaemia, photophobia, ptosis and reduction in visual acuity.

Fluorescein examination revealed corneal abrasion. Treatment included ocular irrigation, antibiotic ointment, and eye patch for 4 days. Treatment continued with tobramycin-dexamethasone drops for two weeks. Symptoms attenuated within twenty days. Ocular healing was complete after a month with no residual effects.

CONCLUSION: Unit dose liquid laundry detergent ocular exposures are common. UDLD like candies, sweet bonbons or toys and are very attractive for children. Corneal lesions due to ocular exposures to UDLD are described and the clinical effects may be disabling for many weeks.