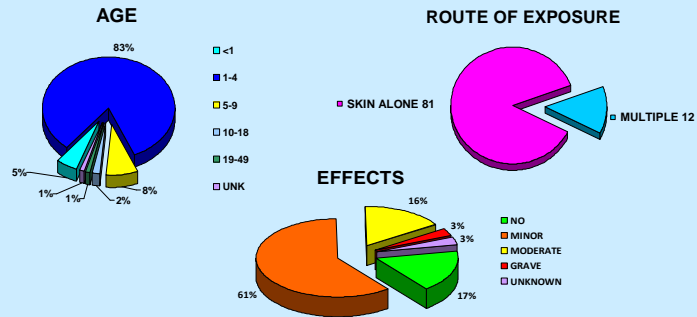


SKIN INJURIES RESULTING FROM ACCIDENTAL EXPOSURE TO UNIT DOSE LIQUID LAUNDRY DETERGENTS: A CASE REPORT



Celentano A¹, Sesana F¹, Settini L², Milanese G¹, Assisi F¹, Bissoli M¹, Borghini R¹, Della Puppa T¹, Dimasi V¹, Ferruzzi M¹, Moro P¹, Rebutti I¹, Travaglia A¹, Severgnini P¹, Georgatos J¹, Giliotti B¹, Davanzo F¹.
¹ MPCC, A.O. Ospedale Niguarda Ca' Granda, Milan; ² CNESPS, Istituto Superiore di Sanità, Rome, Italy

INTRODUCTION: Unit Dose Liquid laundry Detergents (UDLD) are water soluble capsules containing 15/32 mL of highly concentrated cleaning agents. In Italy, UDLD were introduced in the market in July 2010. Between July 29, 2010 and October 31, 2012, the National Poison Control Center in Milan handled 1.143 cases of exposure to UDLD. Among them, 94% were <5 years old, 8% (n=93) were by skin exposure. The present contribution is aimed at describing a case presenting with skin injuries due to exposure to a UDLD content.



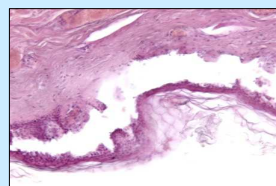
This data collection is related to the total cases of dermal exposures.



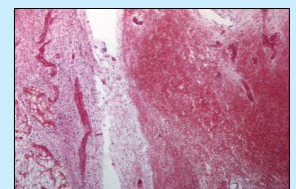
With Kind Concession of the Patient.

A CASE REPORT: while she was loading the washing machine, a 28-year-old female was exposed via skin contact alone to the content of a UDLD. The incident was caused by accidental breakage of the capsule. The involved body area was the low abdomen and the inguinal region. The woman immediately rinsed the exposed area with plenty of cold water. The skin region appeared hyperemic, edematous and excoriated. Two days after exposure, the woman came to the hospital emergency department (ED) where a steroid ointment and an oral antibiotic were prescribed. She applied the ointment three times a day. Irritation lasted for 34 days and the lesions were completely healed five months after exposure (1).

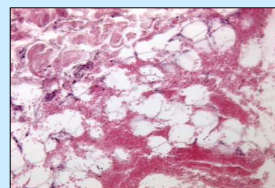
CONCLUSION: Human exposure to irritants are common. The breakage of the UDLD and the contact of the skin with the contents can cause lesions (1). Since the capsules contain concentrated surfactants, the mechanism of action could be related to skin barrier impairment and damage of *stratum corneum*. Individual hypersensitivity can worsen chemical effects and lead to long lasting damage.



Slide A. EE 200X:
Bubble dermo-epidermal and hyperemia in the dermal (1).



Slide B. EE 100X:
Extravasation of blood in the dermal (1).



Slide C. EE 200X:
Extravasation of blood in the hypodermic (1).

With Kind Concession of the Coroner Dr. Antonella Lazzaro.

References: 1) Hayley W. Clin Toxicol 2012;50:776-80