Are cosmetics used in developing countries safe? Use and dermal irritation of body care products in Jimma town, southwestern Ethiopia

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**Background:** Rabbit skin model was used to test skin irritation of the most commonly used cosmetic products in Jimma town, southwestern Ethiopia. The most commonly used cosmetics were Dove, Glysolid, College, Top Society, Fair and Lovely, Nivea, Lux, Magic fruit world, Solea, Body talk, Kris, Holly, Victoria, and Sweet Heart.

**Methods:** Intact and abraded rabbit skins were tested for erythema and edema under shade and under sun exposure. Draize Primary Irritation Index (PII) was used to calculate skin irritation of each cosmetic. Cosmetic ingredients were analyzed from the labels.

**Results and Discussion:** Only Dove cream caused no skin irritation except for an abraded skin under sun exposure for five consecutive days. It has been identified that application of cosmetics on abraded skin under sunny condition worsens the irritation. Cosmetic labels revealed that most ingredients used in all products were those restricted chemicals due to their adverse health effects.

**Conclusion:** This study has concluded that use of cosmetics under sunshine and also on abraded skin increases skin irritation. Hence, those users who have abraded skin are advised not to apply those cosmetics on continuous basis specifically under sun exposure.

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