Topical Chemical Burn

Aliases
Chemical Burn

Patient Care Goals

1. Rapid recognition of a topical chemical burn
2. Initiation of emergent and appropriate intervention and patient transport

Patient Presentation

Inclusion Criteria

1. Patients of all ages who have sustained exposure to a chemical that can cause a topical chemical burn may develop immediate or in some cases a delayed clinical presentation
2. Agents that are known to cause chemical burns include alkalis, acids, mustard agent, and lewisite

Exclusion criteria
None noted

Patient Management

1. Don the appropriate PPE
2. Remove the patient's clothing, if necessary
3. Contaminated clothing should preferably be placed in double bags
4. If deemed necessary and manpower resources permit, the patient should be transported by EMS clinicians who did not participate in the decontamination process, and in an emergency response vehicle that has not been exposed to the chemical
5. Information regarding the chemical should be gathered while on scene including materials safety data sheet if available
6. Communicate all data regarding the chemical to the receiving facility

Assessment

1. Clinical effects and severity of a topical chemical burn is dependent upon:
    a. Class of agent (alkali injury or acid injury)
    b. Concentration of the chemical the (higher the concentration, the greater the risk of injury)
    c. pH of the chemical
        i. Alkali-increased risk with pH greater than or equal to 11
        ii. Acid-increased risk with pH less than or equal to 3
    d. Onset of burn
        i. Immediate
        ii. Delayed (e.g., hydrofluoric acid)
2. Calculate the estimated total body surface area that is involved
3. Prevent further contamination
4. Special attention to assessment of ocular or oropharyngeal exposure — evaluate for airway compromise secondary to spasm or direct injury associated with oropharyngeal