1 Jun 04

Pediatric Burns

Assessment:

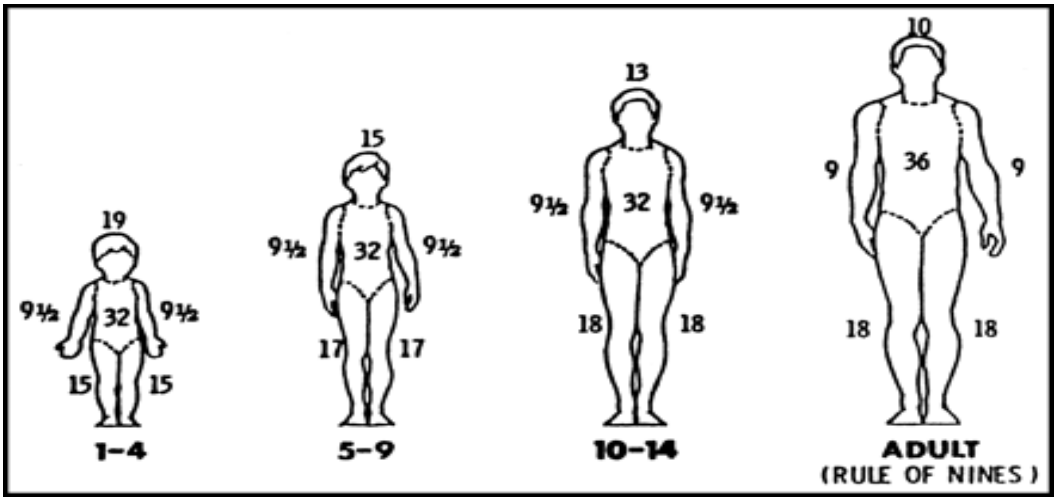
1. Don't forget ABCs

Think about smoke inhalation, CO poisoning, and Airway injury in burns to face.

2. Estimation of BSA burned

Although 1° burns are painful and red they are clinically insignificant

Estimates of BSA burned should include only 2 °(blistered areas) and 3° (leathery white or charred areas)



Remember 3° burns can be painless but require surgical debridement and possible skin grafting

3. **High risk burns include**:

2°+ 3° burns >10% BSA in patient s<10 y.o.
2°+ 3° burns >20% BSA in patients >10 y.o.
3° burns >5% BSA in all patients.
Circumferential burns of chest, abdomen and extremities
2°+ 3° burns of face, hands feet, perineum, over joints
Electrical and chemical burns
Burns associated with major trauma
Inhalation injures

Management:

1. Initial fluids (first 2 hours) 20ml/kh/hr of LR until BSAB can be calculated
2. **Day 1** LR 3-4ml/kg/%BSAB + 1500ml/m^2/ day as maintenance. Give the first ½ in 8 hours, 2nd ½ in the next 16 hours.
3. **Day 2** 1500ml/ m^2/ day of D5 ½ NS with KCL added
4. Consider supplemental Albumin starting on day 2 to keep level> 2g/dl.

5. Stress ulcer prophylaxis with Ranitidine 1mg/kg q8°.
6 Strict I+O's and place Foley catheter for BSAB.25%.
Maintain UOP >1ml/kg/hr for children <30kg
7.Aggressive sedation and analgesia especially during wound care.
8. Watch for both fever and hypothermia.

Wound Care:

1. Initial cover wounds with gauze soaked in sterile saline or water and wrap in kerlex.
2. Clean and debride all wounds on admission, leave blister on hands and face intact.
3. Wash wounds with sterile water and antibacterial soap.
4. Cover wounds with fine mesh gauze slathered with Silvadene cream, then cover with kerlex or netting to keep gauze in place.
Bacitracin acceptable for small denuded 2° burns
0.5% Silver nitrate alternative for 2°+ 3° burns in sulfonamide allergic patients
Consider Mafenide cream for deep infected burns
5. Escharotomies may be required in circumferential burns with compartment syndrome.
6. Tetanus prophylaxis. Td IM
7. Involve PT and OT if available

Nutritional management:

1. Infants: 2100cal/ m^2 BSA+ 1000 cal/ m^2 BSAB
2. Older children: 1800cal/ m^2 BSA+ 1300 cal/ m^2 BSAB
3. Adolescents: 1500cal/ m^2 BSA + 1500 cal/ m^2 BSAB