



# Bangalore Medical College and Research Institute

— Department of plastic surgery & burns



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## Prevalence:

- Victoria Hospital is the tertiary centre of choice for the people of Karnataka and for the neighbouring states catering to about **> 1800 burn victims every year**
- The centre sees an average of **6 admissions per day** apart from patients treated on an outpatient basis
- Entirely **funded by the Government of Karnataka**, and all treatment is given free of cost
- On an average, about **800 surgeries** are performed every year

## Infrastructure:

- Victoria Hospital burn unit has **54 beds with 21 beds each for male and female patients, respectively, 9 beds for pediatric patients and 3 Intensive Care Unit (ICU) beds**
- Victoria Hospital is the new destination for skin donors, with a skin donation bank, or a skin harvesting clinic recently opened at its premise
- Workforce consists of 7 consultants, 12 super specialty (MCh) postgraduate students, specialty (MS) general surgery
- The current nurse to patient ratio is 1:7, and intend to increase further

## Location:

Mahabodhi Burns centre  
Victorial Hospital Campus,  
K.R Road, Bangalore.  
  
Bangalore,  
Karnataka - 560002

## Treatment protocol:

- **Hydrotherapy** is given to all patients on arrival which is being the first step in their treatment protocol, then being shifted to the treatment room
- In the treatment room, they are evaluated for total body surface area (TBSA), depth assessment, and subjected to a primary survey
- Upon fulfilment of the criteria for admission, he/she will be shifted to an appropriate ward
- Collagen Sheets and /or other skin substitutes are used within the first 24 hrs of injury and admission in superficial and deep partial-thickness burns in children and adults with < 30% TBSA
- Patients who do not belong to above category are treated with **silver sulfadiazine (SSD) impregnated dressings**
- Proton pump inhibitor is being given to all patients as a routine treatment
- Morphine/Pethidine is used as pain alleviator along with intravenous paracetamol. Nonsteroidal anti-inflammatory drugs are used sparingly
- Antibiotics (cephalosporins) are started for all patients on admission and according to culture and sensitivity reports eventually

## Association:

- Associated with NGOs (**Vimochana**), helps in the post recovery rehabilitation & prevention programs Psychologist is available during working hours to counsel and motivate patients
- The awareness programs for skin donation are also one of their campaign
- PRO and clerical staff help patients with documentation in availing benefits of Gov. Insurance Policies

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# Dr. Smitha Segu: Journal Publications



Dr. Smitha Segu

**Qualification:** M.B.B.S, M.CH

**Designation:** Consultant Plastic Surgeon

**Speciality:** Plastic Surgery

**Sub-Speciality:** Aesthetic (cosmetic) Surgery

## Experience in management of electrical injuries:

**Introduction:** Electrical injuries - a special type of thermal injury, with a pathophysiology depending on the voltage, current flow and resistance of the skin

**Methodology:** This study is a comprehensive institutional review of database of patients with electrical injuries, from initial resuscitation through final impairment ratings. Electrical injuries can produce significant morbidity despite relatively small burn sizes. Electrical injuries occur in young males and leads to high incidence of upper extremity amputations, resulting in long period of unemployment, extensive new job training and rehabilitation

**Conclusion:** Patients require early operative procedures for prevention of further injury. Timely reconstructive surgery improve final function and return to productivity. Work site accident, which is an important cause is largely preventable

## Comparitive study of role of rhEGF + silver sulfadiazine Vs silver sulfadiazine alone:

**Introduction:** Persistent burn wound leads to infection, internal organ failure, and malnutrition adding to significant morbidity. Early healing is a key step to prevent complications. rhEGF enhances the cellular proliferation and differentiation, hence promotes wound healing

**Methodology:** Single blinded prospective comparative study- 32 patients ranging from 1yr to 40 yrs with TBSA 525% with 2<sup>nd</sup> degree thermal burns were included. To compare role of rhEGF + silver sulfadiazine and silver sulfadiazine alone in healing of 2<sup>nd</sup> degree thermal burn wounds

**Conclusion:** The combination of rhEGF with SSD can enhance burn wound healing significantly in 2<sup>nd</sup> degree thermal burns

## Analgesic efficacy and safety of lornoxicam injection Vs Tramadol injection in reducing pain during dressing of burn wounds :

**Methodology:** Investigated, in a randomized, placebo-controlled, single-blinded study, the efficacy and safety of lornoxicam in pain during dressing of burn patient with 2<sup>nd</sup> degree burns and on tramadol consumption in burn patients

**Conclusion:** Both the drugs lornoxicam and tramadol were effective in reducing the pain score in burn patient and conclude that lornoxicam is non-inferior to tramadol in reducing burn pain

## Persistent paradigm of pediatric burns in India - An epidemiological review:

**Introduction:** Injuries and deaths from burns are a serious, yet preventable health problem globally

**Methodology:** 3 year study describes burns in a cohort of children admitted to the burn's ward in Victoria Hospital, BMCRI. There has been an alarming rise of suicidal thermal burns in the pediatric population

**Conclusion:** Toddlers are most at risk for sustaining severe burns when their environment is disorganized while adolescents act on impulse. Burns injuries can be prevented by improving the home environment and socioeconomic living conditions through the health, social welfare, and education and housing departments apart from reducing stress levels of older children

## Paediatric suicidal burns - A growing concern:

**Introduction:** An alarming rise in rates of paediatric population committing self-immolation acts is a growing social and medical problem

**Methodology:** A study was conducted in the burn centre over 5 years in paediatric age group of <18 years who had committed self-immolation. Majority belonged to lower middle and upper lower class families. Most had deep partial thickness burns

**Conclusion:** Psychiatric and personality disorder were found in 24.03% and 31.46% patients respectively. Kerosene was the main agent chosen to inflict injury. The average length of hospital stay was 19.8 days

## Post burn hypermetabolic response with propranolol :

**Introduction:** Thermal injury is followed by a period of hypermetabolism Post burn hypermetabolism cannot be completely reversed but may be manipulated by nonpharmacologic and pharmacologic means. Propranolol reduces hypermetabolism post burn

**Methodology:** prospective randomized control study was conducted among 100 patients with burns 15- 40% TBSA. To determine the effect of propranolol on hypermetabolism during the acute phase post burn by easily assessable clinical and investigational parameters

**Conclusion:** Following burns, propranolol attenuates infections, inflammatory markers and while improving wound healing. We suggest that propranolol is a safe, cheap and efficacious modulator of the post burn response