

Background & Aims: Burn injuries induce hypermetabolism and consequential increased caloric and protein requirements. This study compared the clinical outcomes of early enteral nutrition (EEN) with those of late enteral nutrition (LEN) for the management of burns.

Methods: A retrospective study was conducted in subjects aged under 18 years who had been diagnosed with either a second-degree burn with a burn area of at least 10% of the total body surface area (TBSA), or a third-degree burn. The subjects were divided into EEN and LEN groups, with enteral nutrition commencing within 48 hours and after 48 hours of the burn injuries, respectively. Clinical outcomes and mortality risk factors were assessed.

Results: Fifty-three patients were assigned to the EEN and LEN groups. There were fewer episodes of respiratory failure and pneumonia and shorter hospitalization in the EEN group than the LEN group. When comparing only patients with a burn size larger than 40% of TBSA, the EEN group had a shorter hospitalization than the LEN group. The factors associated with death were a burn size of at least 50% of TBSA, an initial serum albumin of 1.5 g/dL or less, a PRC transfusion of 57 ml/kg or more, and the presence of acute kidney injury (AKI).

Conclusions: EEN demonstrated favorable clinical outcomes compared with LEN. A burn size, an initial albumin, a PRC transfusion volume, and AKI could be the prognostic factors of burn mortality.

Keywords: Burns, Enteral nutrition, Mortality, Risk factors