Burns in Jammu: Retrospective analysis from a regional centre

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Background: Despite clinical, socio-political and academic interest, little is known about the incidence and demographic characteristics of patients with major burns in India.

Objectives: To identify and analyze the demographic and socio-cultural aspects of burn patients and various etiological factors causing burns in Jammu province and to suggest measures to prevent and reduce their incidence.

Materials & Methods: We conducted a retrospective study on 2230 burn patients over a 17 year period from January 1994 to September 2010 who were admitted to the Government Medical College and Hospital, Jammu, India. The patients were analyzed for epidemiology data, risk factors, cause and outcome of burns.

Results: Sixty percent (1333) were females with a Male: Female ratio of 1:1.67. Eighty one percent (1811) were adults greater than 15 years, of whom 57% (1268) were aged between 21 and 40 years. Eighty one percent (1684) of patients were Hindus. Flame burns were the most common in adults 83% (1510) and scalds most common in children (0-10 years) 55% (144). Fifty three percent (1046) patients had extensive burns involving 41% or more of their body surface area with 33% (738) having burns involving greater than 60% body surface area (BSA). The overall mortality rate was 45% (1011). It was 73% (733) in females and 27% (278) in males. Mortality increased directly in proportion to increase in the TBSA burnt.

Conclusions: In Jammu region burns are a major public health problem in females with 73% of females with burn injury dying.

Control of D-glucose preserves renal function in patients with diabetes

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We previously reported that D-glucose is a strong predictor of renal function change in diabetes. This study is an expansion of a previous study but with longer duration. Date compared between first and last visits. Eighty five diabetic patients were treated with a combination of glargine or detemir and regular or fast acting insulin for 26.3±24.6 (SD) months. Blood pressure was controlled by beta blockers, calcium channel blockers, sympathetic inhibitors or a combination and chlorthalidone in resistant cases. Angiotensin converting enzyme inhibitors and receptors blockers (ACEI/ARB) were excluded in order to reduce the risk of acute and chronic renal failure. Objectives were to determine if this paradigm of treatment prevents progression of diabetic nephropathy. Fasting (F) and 2-hour postprandial (2hPP), glucose, serum creatinine (Scr) and estimated glomerular filtration rate (eGFR); hemoglobin A1c (HbA1c) and sitting systolic and diastolic blood pressure (SBP) were recorded for first and last visits. Mean blood pressure (MBP) and differences (d, 2hPP-F) were calculated for glucose, Scr and eGFR. Parameters between first and last visits were compared using a paired t-test adjusted for age, gender and duration of treatment with P<0.05 considered significant. No significant differences were found between first and last visits for F and 2hPP glucose, F and 2hPP glucose, F and 2hPP Scr and F and 2hPP eGFR and HbA1c. D-glucose, sitting SBP and MBP were significantly lower at last compared to first visit. Combining visits, D-glucose and HbA1c showed a direct and positive correlation with dScr. Change in post minus pre-treatment values was significantly positively correlated between HbA1c and FBG, 2hPPG or D-glucose. In conclusion, the current study emphasizes the importance of control of D-glucose (2hPP-F) with insulin in preserving renal function in diabetes when ACEI/ARB is not used.