**UK Calciphylaxis Study: Clinical Characteristics and Outcomes-An update**

**Background**

Calcific uremic arteriolopathy (CUA), or calciphylaxis is a rare but deleterious condition occurring due to calcification of blood vessels observed primarily in patients with end-stage renal disease. The annual mortality rate is reported to as high as 55% in patients with CUA (US data). Management of this condition includes a multifaceted approach. (medical, increase in dialysis sessions, wound care and surgery). Ongoing evaluation of the natural history, patient characteristics and management strategies are warranted for early identification and initiating prompt management.

**Objectives**

To investigate the patient characteristics, management strategies and outcome of CUA patients registered in UK calciphylaxis registry.

**Methods**

A cross-sectional analysis was carried out on patients registered in the UK calciphylaxis study between 2013 till 2017. The UK calciphylaxis study is a UK wide prospective observational internet-based registry of CKD patients associated calciphylaxis. Data including demographics, cardiovascular comorbidities, clinical characteristics, laboratory results, medications and therapeutic interventions are collected from all enrolled patients on a 4-monthly basis. Chi-Square test was used to test the significance of interventions with outcomes.

**Results**

A total of 60 patients with complete follow-up datasets were included in this analysis. At study baseline, median age of our cohort was 58, with predominance of females 57% and Caucasians 95%. 70% were on haemodialysis at study entry. 52% were diabetic with median body mass index being 32 kg/m2. CUA skin lesions were predominantly noted in lower extremities 37 (62%) followed by thighs 17 (28%) and abdomen 10 (17%). The multifaceted approach in management is illustrated in table-1. During this follow up period, 18 (30%) had an episode of bacteraemia, resolution of skin lesions was noted in 11 (18.3%), and the mortality was 52% (31 of 60). There was no statistical significant difference observed when comparing interventions individually (use of sodium thiosulphate, wound debridement and amputation) with outcomes (skin lesion resolution and mortality). (Chi-Square test, p>0.05)

**Conclusions**

The study endorses the need for multifaceted approach in the management of this challenging condition with high mortality. Further follow-up and ongoing analysis can guide to tease out the effective set of treatment strategies.

**Table-1: Management Strategies**

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| Management | Number of patients |  % of total (60) |
| Calcimimetics | 20 | 33.3 |
| Sodium thiosulphate (STS) | 40 | 66.6 |
| Stopping calcium binders | 41 | 68.3 |
| Stopping vitamin-D | 13 | 21.7 |
| Stopping warfarin  | 5 | 8.3 |
| Bisphosphonates | 2 | 3.33 |
| Antibiotics (Intravenous) | 12 | 20 |
| Antibiotics (Oral) | 6 | 10 |
| Hyperbaric Oxygen | 2 | 3.3 |
| Increased dialysis frequency | 8 | 13.3 |
| Wound debridement | 12 | 20 |
| Skin graft | 3 | 5 |
| Amputation | 2 | 3.33 |