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Introduction and objectives: Serum total and ionized calcium levels are significantly low in patients with dengue haemorrhagic fever than uncomplicated dengue fever (DF). This study was carried out to assess the association between serum ionized calcium level and TSFA.

Method: A cross sectional study was carried out at the University Medical Unit, Teaching Hospital Anuradhapura from January to May 2014. All suspected patients of DF were recruited to the study. Clinical parameters were documented throughout the hospital stay. Serial ultrasound scans were done to assess for TSFA and serum ionized calcium levels were measured daily till recovery.

Results: Of 33 confirmed cases of Dengue, five patients had ultrasound evidence of TSFA. Fourteen patients (42%) developed hypocalcaemia during hospital stay. Distribution of serum ionized calcium revealed an increasing trend over the duration of fever with lower values in the initial days. All five patients who developed TSFA had hypocalcaemia either prior to detection of TSFA (n=2) or at the time of first detection (on admission, n=3). Mean serum ionized calcium among patient with TSFA was 0.98 (SD 0.1) mmol/l compared to 1.12 (SD .14) mmol/l among confirmed cases of dengue without TSFA (p=0.035).

Conclusion: Serum ionized calcium is associated with severity of dengue according to fluid leakage. Mean serum ionized calcium level was significantly lower and hypocalcaemia is more prevalent among patients who developed TSFA. Hypocalcaemia seems to be an early feature of TSFA.

OP005

Comparison of seroconversion rates to the Japanese Encephalitis live and killed vaccines in children

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Introduction and objectives: Until year 2009, the Japanese encephalitis (JE) killed vaccine was used in the National Immunization program, which was then substituted with the JE live vaccine. Therefore, we proceeded to compare the seroconversion rates of these vaccines in a large cohort of children.

Method: 608 children, aged 5-16, registered at the Family Practice Centre of the University of Sri Jayewardenapura, were recruited following informed written consent from parents. JE Detect IgG ELISA (Inbios) was used for the detection of IgG antibodies in serum to determine the JE antibody status. Calculation of the JE was done according to the manufacturers' instructions and accordingly an ISR (immune status ratio) of > 5 was considered positive; an ISR of 2-5 equivocal and an ISR of < 2 negative. 51 (9%) children had only partially completed the killed vaccine schedule and therefore, were excluded from the analysis.

Results: 565 (92.9%) children were vaccinated against JE. 311 (55%) children had been given the live vaccine and 204 (36 %) the killed vaccine. We found that children who had received the killed JE were significantly more likely (p<0.001) to have seroconverted when compared to the live JE vaccine. 73 (35.8%) of those who received the killed vaccine had seroconverted to JE and 55 (26.9%) had an equivocal response, where as only 52 (16.7%) of those who received the live vaccine seroconverted and only 58 (18.6%) had an equivocal response.

Conclusion: Children are significantly more likely to seroconvert with the killed JE vaccine.