

Poster presentation

## Serum and urine nitric oxide levels in children with Henoch-Schonlein Purpura during activity and remission – a study from North India

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### Objective

To compare serum and urine reactive nitrogen intermediates (RNI) and citrulline levels in children with Henoch-Schonlein Purpura (HSP) during activity and remission.

### Methods

The study group consisted of 14 children with biopsy proven HSP. We measured serum and urine RNI and citrulline levels by spectrophotometry in the active phase and after remission.

### Results

Serum RNI levels were  $303.95 \pm 221.44$  nmol/ml in children with active HSP and  $72.57 \pm 26.56$  nmol/ml during remission, the differences being statistically significant ( $p = 0.002$ ). Mean urine RNI levels in children with active HSP were significantly higher than that seen during remission ( $3.25 \pm 1.80$  vs.  $1.68 \pm 0.65$  nmol/ml;  $p = 0.003$ ). Similarly, serum citrulline levels during disease activity were  $790.65 \pm 707.87$  nmol/ml as compared to  $281.49 \pm 307.29$  nmol/ml at the time of remission, the differences being statistically significant ( $p = 0.002$ ). Mean urine citrulline levels in children with active disease was  $1969.94 \pm 1655.42$  nmol/ml as compared to  $1099.34 \pm 955.82$  nmol/ml in children with remission, ( $p = 0.007$ ).

### Conclusion

Serum and urine RNI and citrulline levels were significantly higher during the active phase of HSP. These findings suggest that nitric oxide may perhaps have a role in

the pathogenesis of HSP. Further, these laboratory parameters could be of value in monitoring disease activity.