Deflazacort versus prednisolone: Randomized controlled trial in treatment of children with idiopathic nephrotic syndrome

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Introduction: Corticosteroids are the main therapy of nephrotic syndrome and goal of corticosteroid therapy is to obtain maximum clinical benefit with minimum adverse effects. Children are more vulnerable to side effects of corticosteroids related to growth and adrenal suppression so a search for an alternative steroid with fewer side-effects is underway. Deflazacort is an oxazoline derivative and preliminary data suggest reduced osteoporosis, lesser growth retardation and weight gain with deflazacort. This study was done to compare the effectiveness and safety of deflazacort in idiopathic nephrotic syndrome.

Methods: Twenty five children with age between 2 to 12 years, with idiopathic nephrotic syndrome were enrolled. They were randomly assigned to receive Deflazacort (Group A, n=12) or Prednisolone (Group B, n=13) and were followed up for six months.

Results: All children of group A and 11 of group B had remission. Two children from group B were steroid resistant. Mean time taken to induce remission was significantly (P=0.012) less in group A (10.25±2.41 days) than group B (12.55±1.44 days). One patient in group A had relapse on follow up as compared to 3 in group B (P=0.58). Statistically significant difference (P=0.03) in change in mean height was found between group A (2.13±0.50cm) and B (1.44±0.45cm), with group B gaining less height.

Conclusion: Remission rate in both groups was comparable although time taken to induce remission was shorter in Deflazacort group and there was a significant difference in change of mean height on follow up with Prednisolone group gaining lesser height.

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