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Title Page

- Title.

Secondary loss of response to infliximab in pediatric Crohn's disease: Does it matter how and when we start?

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- Short title.

LOSS OF RESPONSE TO INFLIXIMAB IN PEDIATRIC CROHNS DISEASE

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Abstract

Objectives: A significant proportion of children with Crohn's disease develop a secondary loss of response (LOR) to infliximab. Our aim was to study the impact of initial treatment strategies on secondary LOR.

Methods: We reviewed the medical records of children with Crohn's disease who received scheduled maintenance infliximab therapy for at least 12 months. We compared children who developed LOR with those who did not; with regards to their clinical and laboratory parameters, disease phenotype and treatment strategy before developing LOR.

Results: 73 children (Median age at diagnosis- 11 (2 – 16) years, 41 boys) who had received a median duration of 33 (13-110) months of infliximab therapy were included in the final analysis. LOR was seen in 25(34.2%). Demographic variables, disease phenotype (age, disease location and behavior), inflammatory parameters and PCDAI at induction with infliximab, was similar between both groups.

Children with LOR had a significantly greater number of flares of the disease when compared to those who did not have LOR [4 (1 – 8) vs. 2(1- 5) p = 0.03]. The choice of the concomitant immunomodulator - Methotrexate [11/29(37.9%)] vs. Azathioprine [11/36(30.5%)] (p = 0.6) did not affect LOR rates. The median time–lag between diagnosis and induction with infliximab was significantly longer in children with LOR as compared to those who did not have a LOR[28 (4-90) months vs. 12.5(1 – 121) months, p=0.004].

Conclusion: Early use of infliximab in pediatric Crohn's disease is associated with a decrease in secondary LOR. The type of concomitant immunomodulator used does not make a difference to LOR rates.

Key-words –Infliximab, Pediatric Crohn's disease