

The Relationship of Test for Respiratory and Asthma Control in Kids Initial Score on the Prognosis of Pre-school Children With Asthma : A Prospective Cohort Study

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Background & Objective: As preschoolers are too young to perform PFT and they do not cooperate with physical examination, the diagnosis and assessment of asthma is dependant on history given by their caregivers. **The test for respiratory and asthma control in kids (TRACK) is currently the only standard follow up tool for children under 5 years of age with asthma.** The purpose of this study was to investigate the relationship between the TRACK initial score (Ti) and their prognosis after 6 months of follow-up in preschoolers with asthma.

Design : A prospective cohort study.

Methods : The study included preschoolers diagnosed with asthma at the Shanghai Children's Medical Center between January 2019 and June 2020, and follow-up for 6 months. TRACK scores, frequency of wheezing and respiratory infections, number of Emergency Department (ED) visits and treatment regimens were collected. According to the TRACK initial score, the children were divided into "Ti <60 group and "Ti >60 group, and the two groups were compared in terms of TRACK score related indicators, clinical manifestations and treatment.

ACADEMIC P.E.A.R.L.S

Pediatric Evidence And Research Learning Snippet



IS "TRACK Score" A HELPFUL TOOL TO PROGNOSTICATE ASTHMA IN PRESCHOOL CHILDREN ?

Results: There were 102 pre-schoolers in the analysis [78 boys (76.5%) and 24 girls (23.5%); mean (SD) age 28.05 (11.63) months]. After 6 months of follow-up , the TRACK score improved in both groups and the "Ti >60 group had a higher score, lower rate of uncontrolled asthma and required fewer reassessments . There was no difference in the number of wheezing attacks between the two groups in terms of clinical presentation. But the "Ti <60 group had more respiratory infections and ED visits. Regarding the use of ICSs , in the "Ti <60 groups, the dose of ICSs was higher and reduced slowly, and the dose difference between the two groups began to appear after 5 months of follow-up.

Conclusion: TRACK is essential for pre-schoolers with asthma at the time they are diagnosed. If the TRACK initial score is <60, there is higher probability of poor prognosis.

Briefly about TRACK tool : The test used in this study is the TRACK, a Likert scale. The test measured the condition of asthma control in preschoolers using **five questions:** (1) the frequency of respiratory problems (such as wheezing, coughing and shortness of breath) in the last 4 weeks; (2) frequency of waking up at night due to respiratory problems in the last 4 weeks; (3) frequency of interference of respiratory problems with the child's activities in the last 4 weeks; (4) frequency of using emergency medication in the preceding 3 months; and (5) frequency of high dose of ICSs or systemic corticosteroids use in the past 12 months. **Scores for various items ranged between 0 and 20, and the total score of the TRACK was 100.** TRACK score ≥ 80 is usually considered as controlled asthma.

EXPERT COMMENT

"TRACK – a caregiver reported test , designed explicitly for under 5 children is a simple and efficient tool for diagnosis and assessment of asthma control. TRACK can be easily used by clinicians in OPD and IPD preschool children. TRACK helps in early identification of under 5 children whose asthma symptoms may persist and intervention is very important. TRACK helps in determining prognosis and guiding asthma management."

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With warm regards,

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Reference

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