

Development of a Risk-Stratification Tool for Medical Child Abuse in Failure to Thrive

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KEY WORDS

Munchausen syndrome by proxy, child abuse, statistical models

ABBREVIATIONS

MCA—medical child abuse/medically child abused

FTT—failure to thrive

DCFS—Department of Child and Family Services

CTA—classification-tree analysis

CI—confidence interval

TPN—total parenteral nutrition

Ms Mash, Drs Frazier and Nowacki, Ms Worley, and Dr Goldfarb conceived of and designed the study; Ms Mash acquired the data; Ms Mash, Drs Frazier and Nowacki, Ms Worley, and Dr Goldfarb analyzed and interpreted the data; Ms Mash and Dr Goldfarb drafted the manuscript; Drs Frazier and Nowacki and Ms Worley critically revised the manuscript for important intellectual content; and Ms Mash, Drs Frazier and Nowacki, Ms Worley, and Dr Goldfarb gave final approval of the manuscript to be published.

www.pediatrics.org/cgi/doi/10.1542/peds.2011-1080

doi:10.1542/peds.2011-1080

Accepted for publication Aug 26, 2011

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PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

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FINANCIAL DISCLOSURE: The authors have indicated they have no financial relationships relevant to this article to disclose.



WHAT'S KNOWN ON THIS SUBJECT: Failure to thrive is a common presentation of medical child abuse. General clinical features such as unusual presentation and lack of response to typical treatments can help identify medically abused children. Yet, diagnosis is often delayed by months or years.



WHAT THIS STUDY ADDS: A simple risk-stratification tool was developed to help identify medical child abuse in children evaluated for failure to thrive. This tool could aid in earlier identification of medically abused children and reduce morbidity and mortality.

abstract

OBJECTIVE: To develop a risk-stratification tool to help identify medical child abuse (MCA) in children evaluated for failure to thrive (FTT).

PATIENTS AND METHODS: In this case-control study, the control group consisted of children who were seen in the pediatric gastroenterology department and diagnosed with FTT before the age of 5 years between 2000 and 2010. Cases were distinguished by having also been referred to the Child Advocacy Committee at the Cleveland Clinic Foundation (CCF) and/or reported to the Department of Child and Family Services by the CCF as a possible case of MCA. We used retrospective chart review to compare 17 cases of MCA with 68 controls. Classification-tree analysis was used to generate the risk-stratification tool.

RESULTS: A risk-stratification tool, in the form of a classification tree, was developed and incorporated the following individual risk indicators: (1) ≥ 5 organ systems involved; (2) absence of serious congenital anomaly or confirmed genetic disorder; (3) ≥ 5 reported allergies; and (4) refusal of services from a multidisciplinary feeding team. Overall, the classification tree had a sensitivity of 100% and a specificity of 96%.

CONCLUSIONS: The results of this study suggest that a diagnosis of MCA may be suspected in children with FTT on the basis of features in the initial presentation and clinical course. Using the proposed risk-stratification tool that incorporates these features might assist in earlier identification of medically abused children and reduce morbidity and mortality. *Pediatrics* 2011;128:e1467–e1473