

Iron deficiency in autism. 2002

Children Centre, Royal Glamorgan Hospital, Mid Glamorgan, UK

This research considers the prevalence of iron deficiency in children with autism [..]. Retrospective analysis of the full blood count and, as far as available, serum ferritin measurements of 96 children (52 with autism and 44 with Asperger syndrome) was undertaken. Six of the autistic group were shown to have iron deficiency anaemia and, of the 23 autistic children who had serum ferritin measured, 12 were iron deficient.

Iron deficiency, with or without anaemia, can impair cognition and affect and is associated with developmental slowing in infants and mood changes and poor concentration in children. This study showed a very high prevalence of iron deficiency in children with autism, which could potentially compromise further their communication and behavioural impairments.

NDF – Un bambino su due con autismo ha Ferritina bassa. In Inghilterra nella maggior parte dei casi non viene misurata (in Italia forse mai..). La carenza di Ferro nei bambini (con o senza anemia) provoca ritardi nello sviluppo cognitivo ed affettivo, scarsa concentrazione, handicap nella comunicazione e nei comportamenti.

fonte

<http://www.ncbi.nlm.nih.gov/pubmed/11918106>

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Ferritin as an indicator of suspected iron deficiency in children with autism spectrum disorder: prevalence of low serum ferritin concentration. 2006

Dosman CF Drmic IE, Brian JA, Senthilselvan A, Harford M, Smith R, Roberts SW.

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- *Department of Psychology, York University;*
- *Child Development Centre, The Hospital For Sick Children, University of Toronto, Ontario;*
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The mean age of the 61 preschoolers (1–5y) and 35 school-aged children (6–10y) was 5 years 5 months. Median ferritin was 17.1ug/L (range 2.5ug/L–49.2ug/L). [..]

MCV was low in 48% (44/91), associated with median ferritin 17.4ug/L; Hb was low in 19% (17/91). [..] Lower ferritin values were correlated with higher ADOS communication scores, indicative of more severely impaired communication, which could reflect more restricted diets in impaired children, or that behavioural difficulties are exacerbated by iron deficiency.

Assuming low ferritin indicates iron deficiency in this population, this study confirmed a much higher prevalence of iron deficiency in children with ASD than in the general population. This may be associated with more severe ASD impairment. The high rate of microcytosis supports the presence of iron deficiency, but its associated high prevalence of ferritin above cut-off values suggests that ferritin measurements may miss some children with iron deficiency and supports the need for multiple markers.

NDF - Un bambino autistico su due ha un MCV (microcitosi, ovvero volume corpuscolare medio, esame dell'Emocromo) bassa associata con Ferritina media di 17.4ug/L (uno su cinque ha anche valori emoglobinici scarsi).

La carenza di ferro si rileva in modo più appropriato tramite la misurazione di più parametri (ferritina, emocromo, protidogramma, ferro, transferrina)

fonte

<http://www.ncbi.nlm.nih.gov/pubmed/17109795>

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Mothers of children with autism less likely to have taken iron supplements during pregnancy.

21.9.2014 – UC Davis University of California - Rebecca J. Schmidt

Low iron intake was associated with a five-fold greater risk of autism in the child if the mother was 35 or older. The research is the first to examine the relationship between maternal iron intake and having a child with autism spectrum disorder [..] association between lower maternal iron intake and increased ASD risk was

strongest during breastfeeding, after adjustment for folic acid intake,” said Rebecca J. Schmidt, assistant professor in the Department of Public Health Sciences and a researcher affiliated with the MIND Institute. “Iron deficiency, and its resultant anemia, is the most common nutrient deficiency, especially during pregnancy, affecting 40 to 50 percent of women and their infants [...] Iron is crucial to early brain development, contributing to neurotransmitter production, myelination and immune function. All three of these pathways have been associated with autism.”

NDF – Madri che non prendono adeguato ferro durante la gravidanza hanno 5 volte più possibilità di avere un bambino autistico.

fonte

<http://www.ucdmc.ucdavis.edu/publish/news/newsroom/9189>

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Association between psychiatric disorders and iron deficiency anemia among children and adolescents: a nationwide population-based study. / 2013

Dr. Ya-Mei Bai

Department of Psychiatry, Taipei Veterans General Hospital, Taipei, Taiwan

Department of Psychiatry, College of Medicine, National Yang-Ming University, Taipei, Taiwan

The study reviewed data maintained in the Taiwan National Insurance Database from nearly 15,000 children and adolescents. [...] **Autism was 308% more prevalent in those with low iron levels.**

<http://www.foxnews.com/health/2013/06/25/is-iron-deficiency-causing-psychiatric-disorders-in-kids.html>

Utilizing the National Health Insurance Database from 1996 to 2008, children and adolescents with a diagnosis of IDA were identified and compared with age and gender-matched controls (1:4) in an investigation of the increased risk of psychiatric disorders. [...]

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3680022/>

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Children with autism: effect of iron supplementation on sleep and ferritin / 2007

Glenrose Rehabilitation Hospital, Department of Pediatrics

University of Alberta, Edmonton, Canada

35 children completed the study; 75% percent had restless sleep at baseline, which **improved significantly with iron therapy**, suggesting a relationship between sleep disturbance and iron deficiency in children with autism spectrum disorder. Sixty-nine percent of preschoolers and 35% of school-aged children had insufficient dietary iron intake. Mean ferritin increased significantly (16 microg/L to 29 microg/L), as did mean corpuscular volume and hemoglobin, suggesting that low ferritin in this patient group resulted from insufficient iron intake. Similar prevalence of low ferritin at school age as preschool age indicates that **children with autism spectrum disorder require ongoing screening for iron deficiency.**

NDF - Il 75% dei bambini autistici presi in esame aveva problemi di sonno. La situazione è migliorata con la supplementazione di ferro. Il 69% di questi bambini in età prescolare assumeva una dose insufficiente di ferro nella dieta. Dopo la supplementazione la ferritina media è passata da 16 a 29microg/L ed il volume corpuscolare medio (MCV) anch'esso è migliorato. La carenza di ferritina (età scolastica e prescolastica) indica che i bambini con ASD (disturbo dello spettro dell'autismo) hanno bisogno di un continuo controllo delle carenze di ferro.

fonte

<http://www.ncbi.nlm.nih.gov/pubmed/17352947>

Raccolta ricerche del Luglio 2016 a cura di
www.paternita.info

NDF, note