

E9 Parenting Behavior and Nutritional Deficits: Three Cases of Child Neglect

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Learning Overview: After attending this presentation, attendees will better understand the challenges of differential diagnosis of accidental and deliberate natures in some cases of malnutrition in children.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by understanding that prompt recognition of Failure To Thrive (FTT) in toddlers is essential to avoid negative effects on growth and long-term deficits in intellectual, social, and psychological functioning.

Neglect is a form of Child Abuse (CA) that also includes physical, sexual, and psychological abuse.¹ Child neglect is a rising but underreported problem in industrialized countries. Two main categories of neglect are described: deprivation-of-needs neglect (the caregiver's inability to provide for the child's basic needs) and supervisory neglect (failure of a caretaker to provide adequate supervision and safety for the child's developmental age).² Insufficient nutrition in children leads to FTT, clinically characterized by inadequate weight gain or growth, persistently falling below the fifth percentile for sex and corrected age of standard child growth charts.³ Accurate investigations should be performed to rule out organic disease and ascertain nutritional deficits.⁴ This form of neglect can lead to death by starvation in extreme cases.⁵

In order to contribute to the knowledge of the topic, this study describes three cases of various severity child neglect due to inadequate nutrition observed in the multidisciplinary "Bambi" Unit, dedicated to CA, of the Pediatric Hospital "Regina Margherita" in Turin, Italy. The involved children were all hospitalized with severe clinical symptoms and signs, including dehydration, muscle atrophy, wrinkled skin, and respiratory tract infection. All cases were referred to social services and reported to the judicial authorities.

Case 1 involved a 26-month-old baby girl sent to the Emergency Department by a general pediatrician because of impaired growth, multiple respiratory tract infections, and dermatitis. The infant weighed 9.64kg for a height of 83cm, less than the third percentile and between the third and the tenth percentile, respectively. Laboratory analysis detected iron deficiency anemia and excluded thyroid or celiac disease. Her mother exhibited severe parent-child interactional difficulties leading to inconsistent feeding patterns of the daughter.

Case 2, a 9-month-old baby boy, was admitted to the Pediatric Hospital with severe dehydration, hypotonia, muscular hypotrophy, and acrodermatitis. The infant weighed 6.02kg, less than the third percentile. Clinicians suspected milk protein allergy or malabsorption, but laboratory tests showed low levels of amino acids, cobalamin, and zinc as well as high ketones in the urine as signs of poor food intake. Moreover, spectroscopy showed delayed myelination due to a low level of cobalamin. During the hospitalization, a lack of supervision by his single mother was noticed as she was more interested in using her cell phone.

Case 3 involved a 17-month-old baby boy who was born at home without medical assistance and primary care; he had never received vaccinations. His mother weaned him with a vegan diet, resulting in the lack of many nutrients. In the past few months, he had developed suck-swallow incoordination, sialorrhea, anasarca, and walk and speech regression. At admission to the hospital, the infant weighed 7.70kg, less than the third percentile. Laboratory tests showed severe anemia, low proteins, undetectable cobalamin, and hyperhomocysteinemia. Magnetic resonance imaging of the brain showed diffused atrophy of the cortex; spectroscopy showed delayed myelination. A feeding nasogastric tube was placed with implementation of vitamins; speech therapy was required. Despite medical treatment, psychomotor delay persisted. The parents were worried about their child's health, and they carefully followed all the doctors' prescriptions in spite of their firm vegan and anti-vaccination beliefs.

This presentation provides attendees with a better knowledge of child neglect as one of the many causes of FTT. An early recognition of signs indicative of child neglect and abuse can be vital to prevent the situation from worsening, requiring prompt medical care and social support. Missed diagnoses of abuse and neglect because of carelessness or peculiar beliefs could put the child's life in danger.

Reference(s):

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