



letters to the Editor

Early Childhood Caries A diagnostic enigma



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Early childhood caries (ECC) is the most common chronic infectious childhood disease. It is also a major public health problem worldwide [Gomez, 2013]. Although it is not life-threatening, early childhood caries impacts negatively the quality of life when associated with pain. It affects the function, social interactions and cognitive and neurodevelopment of affected children, whose parents also suffer financial and emotional stress [Folayan and Alade, 2018].

Early childhood caries is defined as the presence of one or more cavitated or non-cavitated lesion, missing or filled tooth due to caries in any primary tooth in a child 71 months of age or younger [AAPD, 2008]. The two key parameters here are the age of the child and involvement of the primary dentition.

Here is a scenerio. How to classify a case of a child that has had symptoms of pain from a carious primary tooth at age 4 years but only came for treatment at age 6 years? Is this a case of early childhood caries because of the onset at age 4, or it cannot be considered early childhood caries because of late diagnosis? This highlights the challenges posed by the age-related definition of early childhood caries and the timing of diagnosis of this clinical entity.

The age bracket used for the definition of early childhood caries entails the assumption that the majority of children of this age group will have only primary teeth in the oral cavity. However, there is growing evidence to suggest an increasing number of children erupt their first permanent teeth at a younger age due to improved nutrition: cases of eruption of the first permanent incisor by age 4 years had been reported [Ilieva, 2002]. Therefore, if a five-year-old child has a single caries lesion on a permanent tooth, what is the diagnosis for this child?

Finally, it is difficult to develop a treatment plan for the lesion with the current definition of ECC. While caries can be divided into mild, moderate and severe with corresponding treatment protocol for each lesion, the age-related categorisation of early childhood caries – severe or non-severe [AAPD, 2008] – makes the development of a treatment protocol challenging and difficult.

These scenarios highlight the diagnostic challenges that the current definition of early childhood caries poses. It also underscores the challenges associated with identifying early childhood caries as a distinct lesion from caries in general – it has no distinct diagnostic feature from caries. Defining a lesion by the age of the patient and including a diagnostic criteria that is not restrictive to the age group – caries in the primary dentition – encumbers the attempt to make early childhood caries a distinct clinical entity.

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