

Supplementary Table 1: Characteristics of the studies included.

First Author	Country	Age	Gender, male/famel	N	Case group		Control group	
					Prevalence	Serum ferritin,HGB or MCV	Prevalence	Serum ferritin,HGB or MCV
Ramos <i>et al</i> <sup>[13]</sup>	USA	<60 months	65/58	Case: ECC (63) Control: caries-free (60)	ID: 13/63	NR	ID: 13/60	NR
Sadeghi <i>et al</i> <sup>[7]</sup>	India	24–71 months	117/87	Case: ECC (93) Control: caries-free (111)	ID: 0/93	NR	ID: 0/111	NR
Iranna-Koppal <i>et al</i> <sup>[8]</sup>	India	2–6 years	NR	Case: ECC (30) Control: caries-free (30)	ID: 9/30	Serum ferritin: 29.3 ± 24.3 µg/L	ID: 3/30	Serum ferritin: 76.1 ± 86.7 µg/L
Lü <i>et al</i> <sup>[11]</sup>	China	1–7 years	3430/2836	Case: ECC (1481) Control: caries-free (4785)	IDA: 411/1481	NR	IDA: 586/4785	NR
Guan <i>et al</i> <sup>[9]</sup>	China	41.09 ± 14.26 months	105/101	Case: ECC (111) Control: caries-free (95)	NR	HGB: 111.37 ± 8.71 g/L MCV: 78.51 ± 4.31 fL	NR	HGB: 118.55 ± 7.87 g/L MCV: 78.55 ± 3.53 fL
Abed <i>et al</i> <sup>[2]</sup>	Egypt	2–6 years	67/83	Case: ECC (100) Control: caries-free (50)	NR	HGB: 100.1 ± 8.3 g/L MCV: 72.56 ± 4.96 fL Serum ferritin: 31.86 ± 18.2 µg/L	NR	HGB: 118 ± 9.1 g/L MCV: 80.30 ± 6.35 fL Serum ferritin: 40.96 ± 21.1 µg/L
Bansal <i>et al</i> <sup>[1]</sup>	India	2–6 years	33/ 27	Case: S-ECC (30) Control: caries-free or deft ≤2 (30)	IDA: 13/30	HGB: 113 ± 15 g/L MCV: 74 ± 7.5 fL	IDA: 2/30	HGB: 128 ± 20 g/L MCV: 87.5 ± 11 fL

Jayakumar and Gurunathan <sup>[10]</sup>	India	<72 months	NR	Case: ECC (79) Control: caries-free (35)	NR	Serum ferritin: 28.22 ± 20.65 µg/L	NR	Serum ferritin: 37.40 ± 24.20 µg/L
Rodd <i>et al</i> <sup>[3]</sup>	Canada	40.8 ± 14.1 months	136/130	Case: ECC (144) Control: caries-free (122)	ID: 26/140 IDA: 34/140	HGB: 109.8 ± 8.7 g/L MCV: 78.3 ± 5.3 fL Serum ferritin: 29.1 ± 18.4 µg/L	ID: 3/114 IDA: 7/114	HGB: 121.7 ± 7.6 g/L MCV: 78.5 ± 3.8 fL Serum ferritin: 30.2 ± 17.4 µg/L
Shamsaddin <i>et al</i> <sup>[12]</sup>	Iran	2–6 years	124/118	Case: ECC (159) Control: caries-free (83)	NR	HGB: 125 ± 24.8 g/L MCV: 76.80 ± 5.64 fL Serum ferritin: 34.39 ± 24.93 µg/L	NR	HGB: 123.7 ± 10.2 g/L MCV: 77.61 ± 4.59 fL Serum ferritin: 34.63 ± 19.16 µg/L
He and Wei <sup>[4]</sup>	China	3–6 years Boys:	359/241	Case: ECC (201) Control: caries-free (399)	IDA: 127/201	NR	IDA: 173/399	NR
Gao <sup>[5]</sup>	China	3–6 years	915/ 775	Case: ECC (1103) Control: caries-free (587)	IDA: 31/1048	NR	IDA: 7/536	NR

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ECC= early childhood caries; S-ECC = Severe early childhood caries; ID= iron deficiency; IDA= iron deficiency anemia; HGB= Hemoglobin; MCV= mean corpuscular volume; deft - d = Decayed; e = Extraction due to caries; f = Filled; t = Teeth; N=number; SD= standard deviation; NR=not report.

**Supplementary Table 2: Risk of bias analysis using the Newcastle–Ottawa scale adapted for case-control studies.**

Reference	Selection			Comparability		Results			Total
	1	2	3	4	5	6	7	8	
<i>Case-control studies</i>									
Ramos <i>et al</i> <sup>[13]</sup>	–	–	–	–	★	★	★	★	4
Sadeghi <i>et al</i> <sup>[7]</sup>	★	★	–	★	★	★	★	–	6
Iranna-Koppal <i>et al</i> <sup>[8]</sup>	★	★	–	–	–	★	★	★	5
Lü <i>et al</i> <sup>[11]</sup>	★	–	★	–	–	★	★	★	5
Guan <i>et al</i> <sup>[9]</sup>	★	★	–	–	★	★	★	★	6
Abed <i>et al</i> <sup>[2]</sup>	★	★	★	–	★	★	★	★	7
Bansal <i>et al</i> <sup>[1]</sup>	★	★	–	–	★★	★	★	★	7
Jayakumar and Gurunathan <sup>[10]</sup>	★	★	–	–	–	★	★	★	5
Rodd <i>et al</i> <sup>[3]</sup>	★	★	–	–	★★	★	★	★	7
Shamsaddin <i>et al</i> <sup>[12]</sup>	★	–	–	★	–	–	★	★	4
He and Wei <sup>[4]</sup>	★	★	–	★	★	–	★	★	6
Gao <sup>[5]</sup>	★	–	★	★	–	★	★	★	6