

Supplementary article data

Association between maternal age at conception and risk of idiopathic clubfoot

A meta-analysis

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Table 1. Quality assessment of case-control studies included in the meta-analysis^a

Studies	Adequate definition of cases	Representativeness of cases	Selection of control	Definition of control	Control for important or additional factor ^b	Exposure assessment	Same method of ascertainment for cases and controls	Non-response rate	Total quality score
Alderman 1991	★	★	★	★	★★	—	★	—	7
Honein 2000	★	★	★	★	★★	★	★	—	8
Skelly 2002	★	★	★	★	★★	—	★	—	7
Carey 2005	★	★	★	★	★★	—	★	—	7
Cardy 2007	★	—	★	★	★★	★	★	—	6
Dickinson 2008	★	★	★	★	★★	—	★	—	7
Parker 2009	★	★	★	★	★★	★	★	—	7
Nguyen 2012	★	★	—	★	★	★	★	—	6
Palma 2013	★	★	—	★	★	★	★	—	6
Sahin 2013	★	★	—	—	★★	★	★	—	6
Werler 2015	★	★	—	★	★★	—	★	—	6

^a A study could be awarded a maximum of one star for each numbered item except for the item control for the most important factor or second most important factor.

^b A maximum of 2 stars could be awarded for control for the most important factor or second most important factor.

Table 2. Characteristics of the 11 studies (all case-control studies) included in the meta-analysis

Study	Country/State	Time	Maternal age, years	Cases/ Controls	OR [95% CI]	Confounding factors
Alderman 1991	Washington State	1987–1989	≤ 19 20–35 ≥ 36	1/168 34/1,159 6/142	–	Maternal race, Gestational length, Maternal smoking, Marital status, Multiple gestation, Sex of infant, Season of birth, Birth weight, Apgar score
Honein 2000	Atlanta	1968–1980	≥ 35	12/147	–	Maternal education, Gestational age, Maternal smoking, Family history, Birth weight, Sex of infant, Primigravida
Skelly 2002	Washington State	1986–1994	< 25 25–29 30–34 ≥ 35	64/86 70/120 77/103 28/47	–	Maternal race, Maternal education, Household income, Family history, Pregnancy order, Gender
Carey 2005	Western Australia	1980–1994	< 20 20–24 25–29 30–34 ≥ 35	44/48 123/167 152/311 86/176 42/74	1.87 [1.19–2.94] 1.51 [1.11–2.04] 1.00 Reference 0.99 [0.72–1.38] 1.16 [0.76–1.77]	Gestational age, Birth weight, Maternal height, Parity, Sex, Race, Oligohydramnios, Presentation, Plurality, Season of birth
Cardy 2007	United Kingdom	1993–1997	≤ 19 20–24 25–29 30–34 35–39 ≥ 40	8/1 39/12 64/23 53/16 23/7 6/1	3.56 [0.41–31.1] 1.25 [0.55–2.83] 1.00 Reference 1.14 [0.54–2.39] 1.14 [0.43–3.03] 2.19 [0.25–19.4]	Sex, Multiple pregnancy, Type of delivery, Birth weight, Stillbirth, Miscarriage, Abortion, Age of father, Rank of index pregnancy, Gravidity of mother, Parity of mother, Maternal use of folic acid, Maternal and paternal smoking, Maternal alcohol consumption, Parents' education
Dickinson 2008	North Carolina	1999–2003	< 20 20–24 25–29 ≥ 30	61/501 137/1,258 122/1,223 124/1,510	1.48 [1.07–2.05] 1.32 [1.02–1.70] 1.22 [0.94–1.58] 1.00 Reference	Smoking, Sex of infant, Maternal race/ethnicity, Maternal education, Marital status, Parity, Gestational age, Infant death, Enrolled in medicaid, Enrolled in WIC, Timing of prenatal care initiation
Parker 2009	USA	2001–2005	< 23 23–34 ≥ 35 missing	1,853/16,921 3,533/36,862 744/7,589 9/18	1.14 [1.08–1.21] 1.00 Reference 1.02 [0.94–1.11]	Sex, Maternal race or ethnicity, Gestational age, Birth weight, Parity, Gravidity, Plurality, Maternal smoking, Maternal education, Marital status
Nguyen 2012	Vietnam	–	< 25 25–34 ≥ 35 missing	33/17 46/56 8/15 12/9	–	Gestational age, Birth weight, Birth month, Breech presentation, Maternal smoking, Maternal diabetes, Maternal education, Maternal marital status, Paternal age at conception, Paternal smoking
Palma 2013	Peru	–	< 23 24–34 ≥ 35	23/20 40/63 9/20	–	Gestational age, Birth weight, Birth month, Breech presentation, Cesarean, Maternal smoking, Maternal diabetes, Maternal education, Maternal marital status, Paternal age, Paternal smoking
Sahin 2013	Turkey	2009–2011	< 20 20–30 > 30	5/187 13/311 10/77	1.00 Reference 0.71 [0.20–2.54] 2.23 [0.69–7.2]	Education level, Work status, Parity, Consanguinity, Sex, Birth weight, Gestational age
Werler 2015	USA	2007–2011	< 20 20–24 25–29 30–34 ≥ 35	19/107 132/369 178/536 183/568 134/452	–	Sex of child, Maternal education, Mother living with child's father, Race – ethnicity, Maternal residence, First-born, Pre-pregnancy body mass index, Clubfoot in parent or sibling

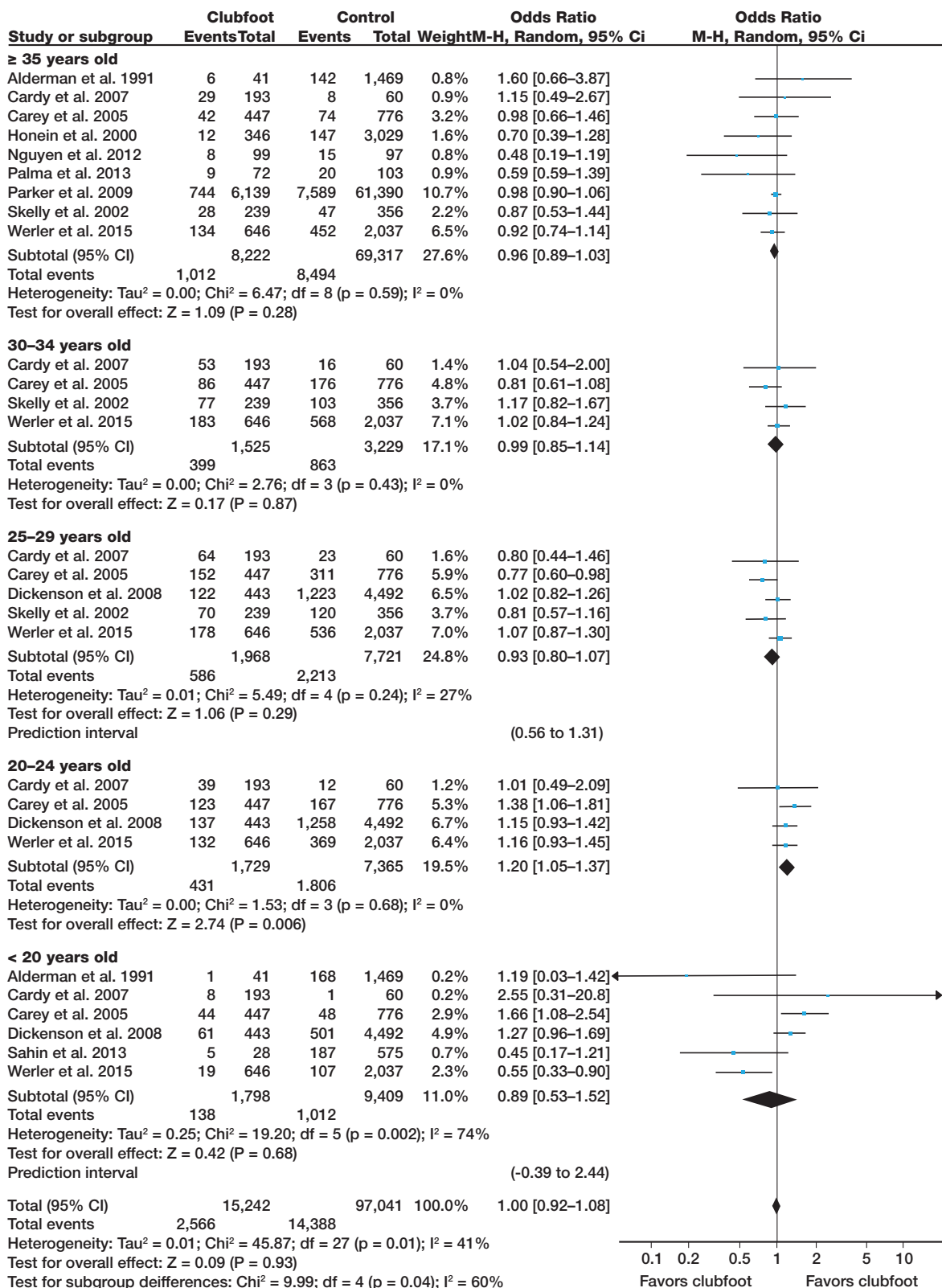


Figure 2. Forest plots for different maternal age groups and the risk of clubfoot.