
EVALUATION OF INFANTS WITH RISK FACTORS FOR DDH

Strong evidence supports performing an imaging study before 6 months of age in infants with one or more of the following risk factors: breech presentation, family history, or history of clinical instability.

Strength of Recommendation: Strong ★★★★★

Description: Evidence from two or more “High” quality studies with consistent findings for recommending for or against the intervention.

RATIONALE

If the risk factors of family and/or breech presentation are present, there is moderate evidence to support selective ultrasound screening between 2-6 weeks of age for infants who otherwise have a normal clinical hip examination or an AP radiograph at 4 months of age. There were two studies of moderate strength that confirm significance for selective prospective screening by ultrasound in infants with history of possible clinical instability and/or risk factors: breech and family history to prevent late dislocations and need for surgery (Paton 2005, Paton 1999).

Of the 10 studies of low strength, the various risk factors included were: breech, family history, sex, combination of sex and breech, combination of sex and family history, hip click, first born, swaddling, and talipes.

Breech literature included six studies all of low study strength. The results of these studies were meta-analyzed and the meta-analysis overwhelmingly supported breech presentation as a risk factor for neonatal instability. The literature terminology on breech is: breech at birth, breech delivery, and breech position at the third trimester; there is no literature to substantiate a particular duration of breech positioning as a risk factor.

Family history included four articles of low strength all showing statistical significance for family history as a risk factor for DDH (Bache 2002, Baronciani 1997, Jones 1989, Rosendahl 1996). There was one study which showed no statistical significance (Akman 2007).

One study compared treatment for dislocatable hips (at age less than one week) with no treatment for stable hips with positive family history (Burger 1990). The outcome was residual dysplasia at five months and was noted to be significant for the no treatment category. The authors further treated these patients from the no treatment category at age five months and compared them with the original cohort of Barlow positive patients treated at age less than one week. This time around, the outcome parameter was residual dysplasia at two years and was again noted to be significant. Other outcome measures included AVN at two years, which was not significant, and treatment failure, which was noted to be significant. This study did not have a true comparative group for analysis. There was a combination of dislocated and dislocatable hips in the Barlow positive category, which confounds the analysis.

The literature definitions of family history of DDH range from unspecified hip disorders to hip dislocation and from first degree relative (parents and siblings), to any relative (even if distant or vague) with hip problems or DDH (all other articles). Three articles listed family history but did not specify the relationships or specific hip problems (Akman 2007, Baronciani 1997, Boo 1989).

One study compared ultrasound screening in infants who had risk factors alone with those who had
View background material and data summaries via the CPG [eAppendix](#)