

A SYSTEMATIC REVIEW COMPARING OUTCOMES FROM ORCHIDOPEXY PRIOR TO ONE YEAR OF AGE WITH ORCHIDOPEXY POST ONE YEAR OF AGE

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Aims: The aim of this systematic review was to investigate whether there is any difference in outcome between orchidopexies performed pre-one year of age, and orchidopexies performed after one year of age.

Methods: The review protocol was prospectively registered (CRD42016025930). Studies were eligible for inclusion if they: (1) Compared orchidopexy pre one year of age with orchidopexy post one year of age for boys with cryptorchidism. (2) Reported at least one measure relating to our primary outcome (testicular atrophy) or secondary outcomes (fertility potential, post-operative complication and malignancy). Studies were excluded if they included infants with disorders of sexual differentiation

Results: 1387 titles were reviewed, from which 15 eligible studies were identified. The GRADE quality of evidence for all outcomes of interest was very low.

Four studies (912 testes) contributed data to the primary outcome, with no difference in rates of testicular atrophy identified (RR 0.64, 95%CI 0.25-1.66). The most commonly reported measures of fertility potential were testicular volume at surgery and mean number of spermatogonia per tubule. Both outcomes were improved with orchidopexy performed prior to one-year of age, with mean differences of 0.06mls more (95%CI 0.01ml more to 0.10ml more), and 0.47 spermatogonia per tubule more (95%CI 0.31 more to 0.64 more) respectively. There was no difference in rates of post-operative complication (RR 0.68, 95%CI 0.27-1.68), and no studies reported malignancy rates (figure 1).

Conclusions: Based upon the limited data available, orchidopexy performed prior to one year of age does not appear to be associated with increased risk of testicular atrophy or surgical complication, and may be associated with improved fertility potential. A randomised controlled trial assessing complications, fertility potential and malignancy risk is needed to address the question fully. Results of any trial should be viewed in light of emerging evidence relating to the risks of anaesthesia in infancy.

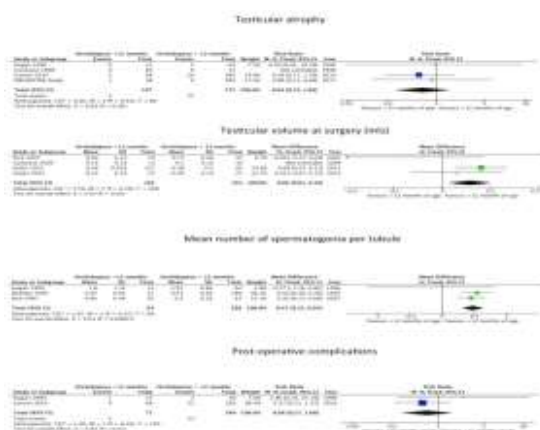


Figure 1. Forrest plots of primary and secondary outcomes