

Stratification of outcome of shoulder dystocia according to maneuver used for delivery, retrospective cohort and meta-analysis.

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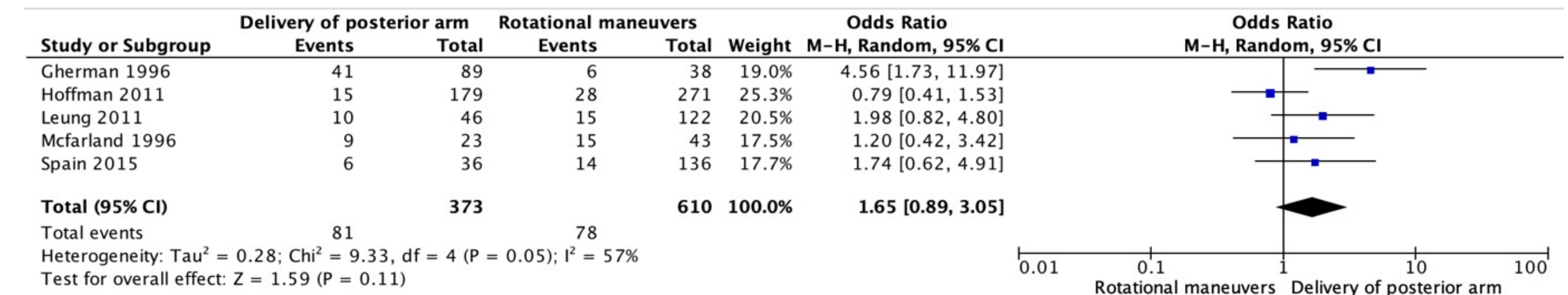
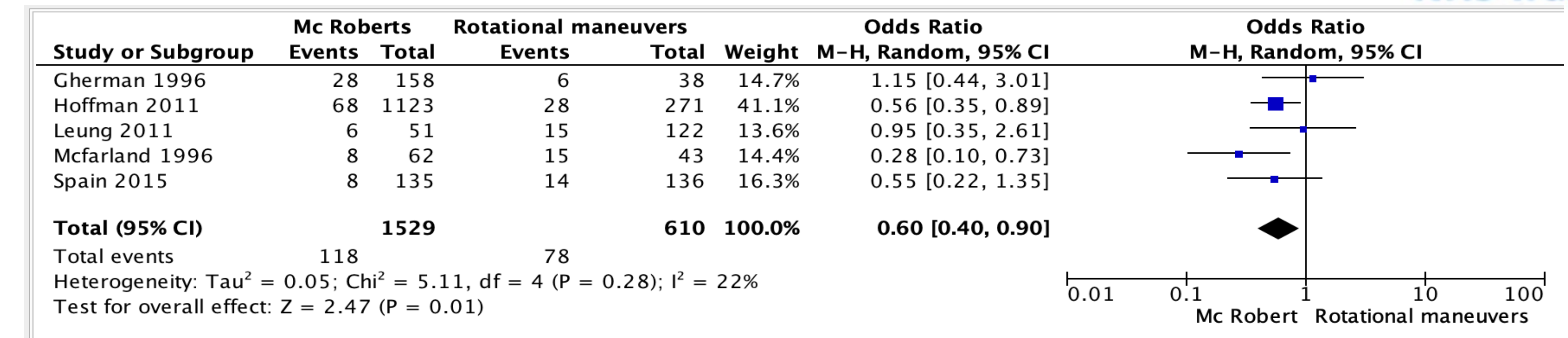
Objective: To explore correlation of neonatal injury in shoulder dystocia with the maneuver used, and time required for delivery, in trial to identify better ways of management of such complication.

Method: Retrospective cohort study, systematic review and meta-analysis of literature.

Results: In our local cohort of 157 cases (1.3% of total births), in analysis of duration of shoulder dystocia (head to body delivery interval, HBDI), there was no significant difference between cases that sustained mechanical injury (fractures, brachial plexus injury) and those without. While HBDI was significantly longer in cases with $Ph < 7.1$ ($P=0.06$).

There was no correlation between $ph < 7.1$ and number of maneuvers used for delivery (Pearson's correlation 0.04, P 0.6). The total number of mechanical injuries in our cohort was small to draw further conclusions.

After systematic review of literature, 5 studies were included in metanalysis. Neonatal injury in cases of shoulder dystocia and manoeuvres used for release were compared between 5 studies.



Conclusion: Our findings reiterate current knowledge and practice with Mc Robert's maneuver being first line of management of shoulder dystocia cases. However, second line is more difficult to be determined. Prioritization of delivery of posterior arm over internal rotational maneuvers has been suggested, further research still required with stress on differentiation of types of fetal injury whether mechanical (fractures, brachial plexus injury) that are more likely to be related to maneuvers used for release, vs hypoxic (Low Ph, brain injury).