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## HUMEROSPINOUS DISTANCE IS NOT OF USE TO PREDICT SHOULDER DYSTOCIA

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**Objective:** To evaluate if the humerospinous distance as an indicator of shoulder width could be used to predict shoulder dystocia at term,

**Methods:** A prospective cross-sectional study of a stratified reference group of 32 healthy women with singleton pregnancies at 39, 40, 41 and 42 weeks by ultrasound was done. Measurement of humerospinous distance was from the cervicothoracic vertebral level at the convergence of the spinous process to the medial border of the humeral head. A group of 40 women with risk factors for developing shoulder dystocia In labor were tested against the reference range.

**Results:** The references group was similar to the general population at term, while the test group women were significantly heavier, had larger babies in the previous and present pregnancies and larger symphysis-fundal measurements, but the mean humerospinous distance was identical in both groups with a similar standard deviation. The only case of shoulder dystocia occurred in the reference group. In 13 other cases the same or greater humerospinous distance was measured. The correlation between birthweight and humerospinous distance was low ( $r^2=0.0049$ ) and the correlation with maternal body mass was even lower ( $r^2=0.005$ ). The measurement was easy to carry out, but movement of the fetal arm across the fetal chest (pro- and retraction, circumduction) could considerably influence measurement.

**Conclusion:** The humerospinous distance can be measured at term, but has inherent potential for error due to shoulder girdle movement and the measurement has no predictive value for shoulder dystocia.

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## HYPERTENSION IN PREGNANCY: A DANGER FOR NOW AND LATER

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**Objective.** Hypertension in pregnancy presents as a syndrome with several phenotypic forms which variously affect a variety of organs, such as the vascular endothelium, blood pressure control, the coagulation system, renal glomeruli and the placenta. Through a number of studies it has been documented that there is a common familial form. Several genetic defects have been associated with expression of the disease in these families. The syndrome may cause or be part of a pathophysiological mechanism that leads to an increased chance of cardiovascular disease in later life.

**Method.** A review will be given of published studies on familial hypertension in pregnancy, on inheritance mechanisms and on the current knowledge on genetic aberrations as well as on links to later cardiovascular complications in women.

**Results.** There is a definitive familial tendency. The likely inheritance mode is multifactorial and/or through a major gene defect with an approximately 30% penetration. This evokes increased susceptibility to the disease. Seemingly sporadic cases may have a familial origin as inheritance can occur through sons as well as daughters and may thus skip generations. Gene aberrations linked to or associated with the disease include the genes encoding for angiotensinogen (perhaps different significance for eclampsia and preeclampsia), endothelial nitric oxide synthase and genes on chromosomes 2,4 and 9. as well as some specific rare familial forms with other genetic links. There is a raised risk ratio for cardiovascular disease in later life, particularly coronary artery disease.

**Conclusions:** Hypertension in pregnancy is a multisystem syndrome which often occurs in families, has a couple of likely inheritance modes, has been linked to genetic aberrations and some of the phenotypes will be related to a raised risk of cardiovascular illness or death in later life.