

News

**2005-09-13****TV ultrasound provides accurate and convenient determination of foetal head position**

A comparison of the accuracy and ease of use of two ultrasound methods with digital examination of women in the second stage of labour has shown that transvaginal (TV) sonography is the best approach.

The study's authors concluded that TV ultrasound was the most successful and accurate method for determination of foetal head position and required the least time for performance. Lead author Dr Neriman Zahalka and colleagues commented, "We believe that transvaginal sonography should be routinely performed in the labour room setting for the determination of foetal head position."

The research team from the Department of Obstetrics and Gynaecology and the Epidemiology Unit at Sackler School of Medicine, Tel Aviv University, Israel, initiated the comparison in response to recent reports that have cast serious doubts on the accuracy of traditional digital vaginal examination as a method to determine foetal head position in labour. Reports have it that digital examination is less accurate in providing this vital information than transabdominal ultrasound scans. However, as Dr Zahalka's group explained, "Transabdominal imaging is technically difficult with a deeply engaged foetal head in the second stage of labour."

In a search for a possible alternative, the team assessed the accuracy and convenience of transvaginal scans in 60 women undergoing the second stage of labour. The women were examined by midwives and senior residents, and the foetal head position was recorded as time on a 12-hour clock. An experienced sonographer then conducted transabdominal and TV ultrasound scans, and the researchers noted the accuracy of all three examinations and the time required to conduct each examination.

They found that TV ultrasound could determine the position of the baby's head in all 60 cases. However, digital vaginal examination failed to determine the position in seven cases and transabdominal ultrasound failed in nine cases. In more than one in five cases, the researchers found a discrepancy of 60 degrees or more between the findings of the digital examination and the ultrasound scans.

There was a 90 degree or greater discrepancy between the digital finding and transabdominal ultrasound in nine cases and in 12 cases compared with TV ultrasound. "In five cases," added Dr Zahalka, "the digital examination erroneously perceived an occiput posterior position as occiput anterior."

There were no significant differences in the reported foetal head position between the two ultrasound methods.

Reference

"Comparison of transvaginal sonography with digital examination and transabdominal sonography for the determination of foetal head position in the second stage of labour",
Zahalka N et al, American Journal of Obstetrics & Gynecology 2005; 193, 2: 381-386

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