

Tubercle-Perineal angle to determine fetal sex on first trimester ultrasound

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Objective

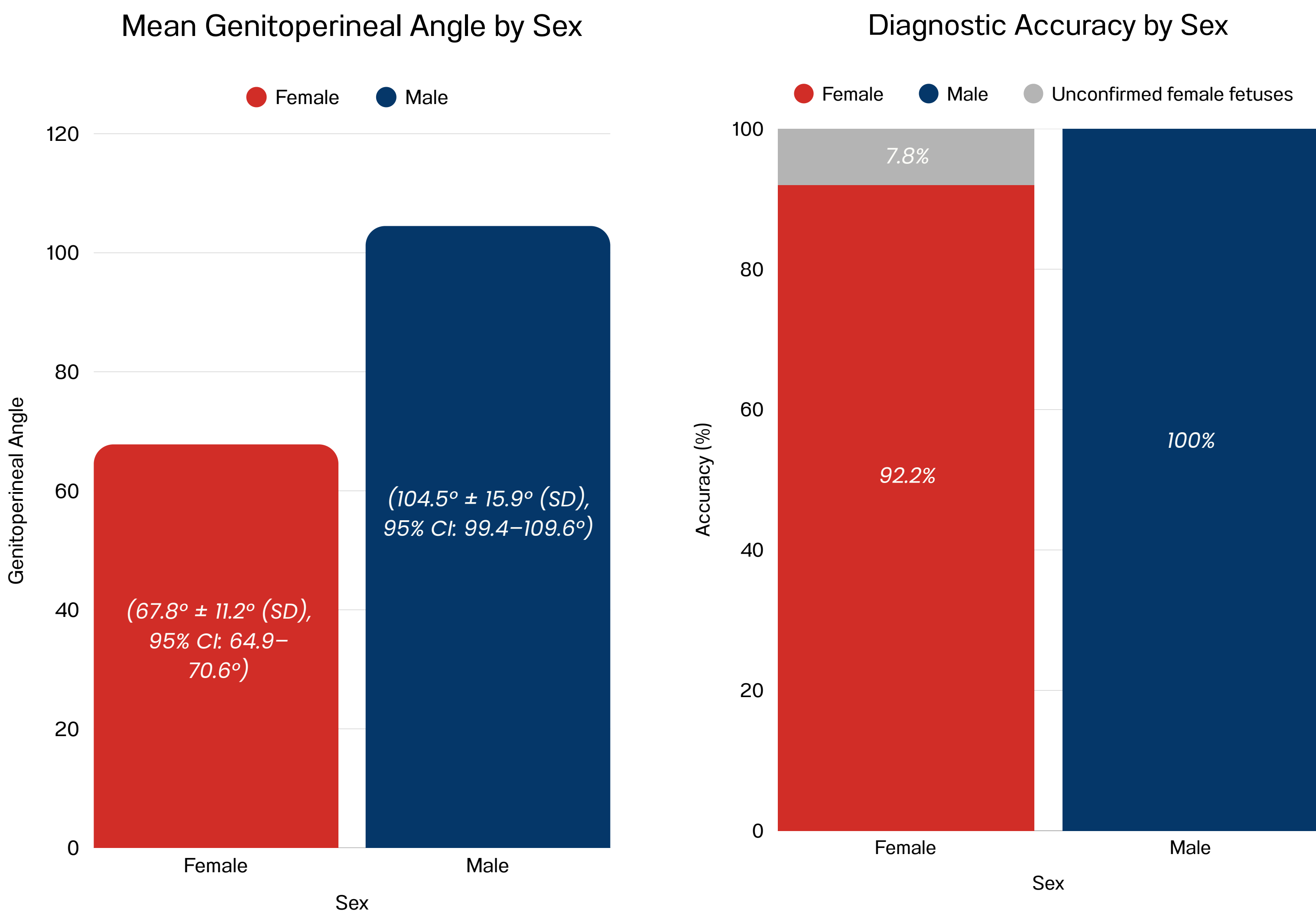
To establish a new angle formed by the genital tubercle and fetal perineum to determine the fetal sex through first trimester ultrasounds.

Methods

- A total of 104 patients of a gestational age of 11 to 13 weeks + 6 days were studied.
- All ultrasounds were performed in midsaggital view; Angles measured between the genital tubercle and perineum.
- Fetal sex later confirmed by second-trimester ultrasound or at birth.
- Mean angles compared between male and female fetuses; statistical significance set at $p < 0.05$

Results

104 patients were included, the average genitoperineal angle of the female sex was of $67,8 \pm 11,2^\circ$, while in the male sex was of $104,5 \pm 15,9^\circ$ $p < 0,00001$. Sex was confirmed in 100% of the fetuses identified as male and in 92,2% of the females.



Conclusion

The diagnostic accuracy of the fetal sex was high using the genitoperineal angle. Angles above 90° were associated with the male sex and angles below 90° with the female sex. The experience of the operator, the angulation and the measures taken to perfect the technique need to be taken into consideration to then have the most precise results.

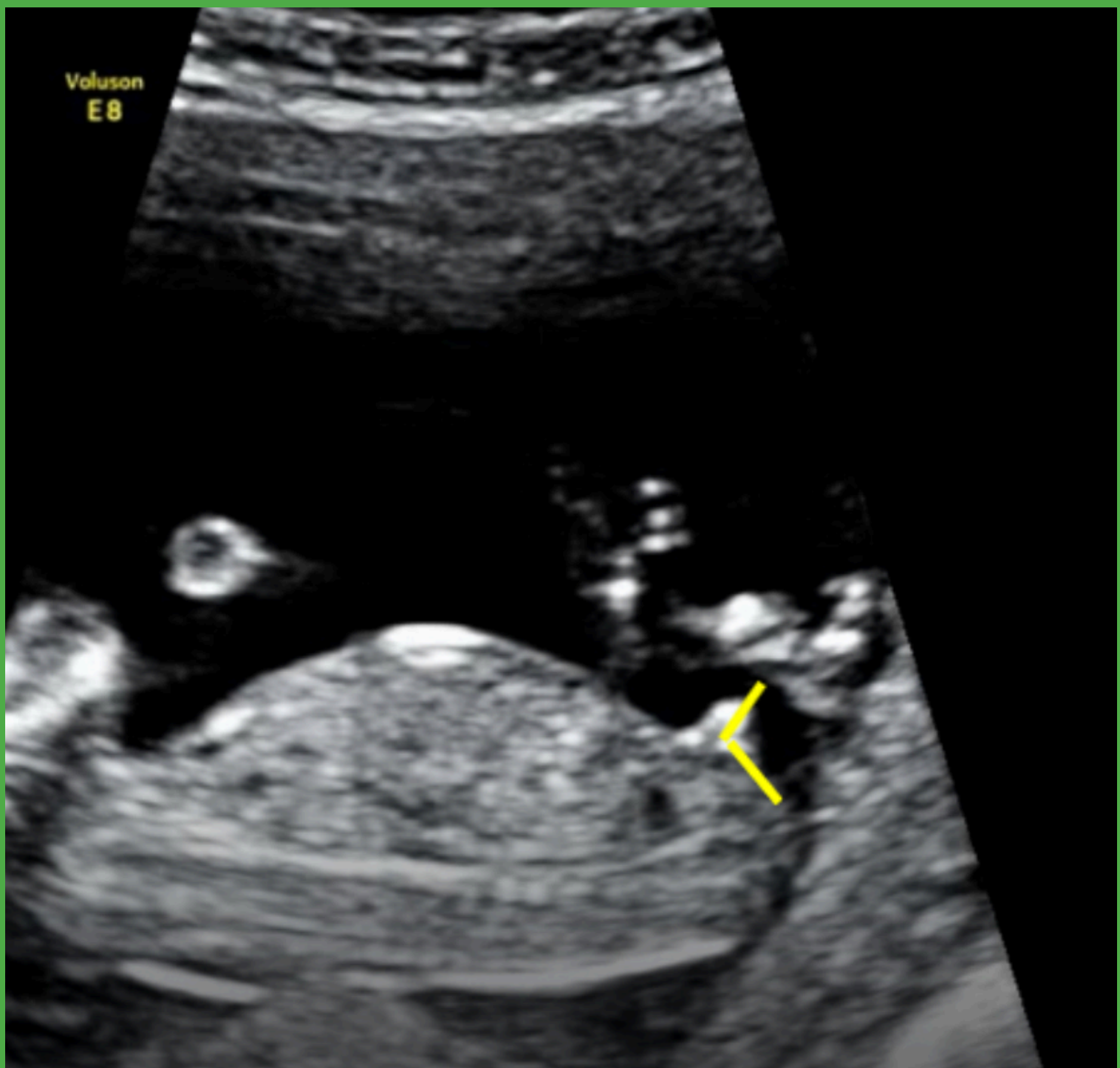


Figure I. (Caliper placement area in a 3 point generic angle).

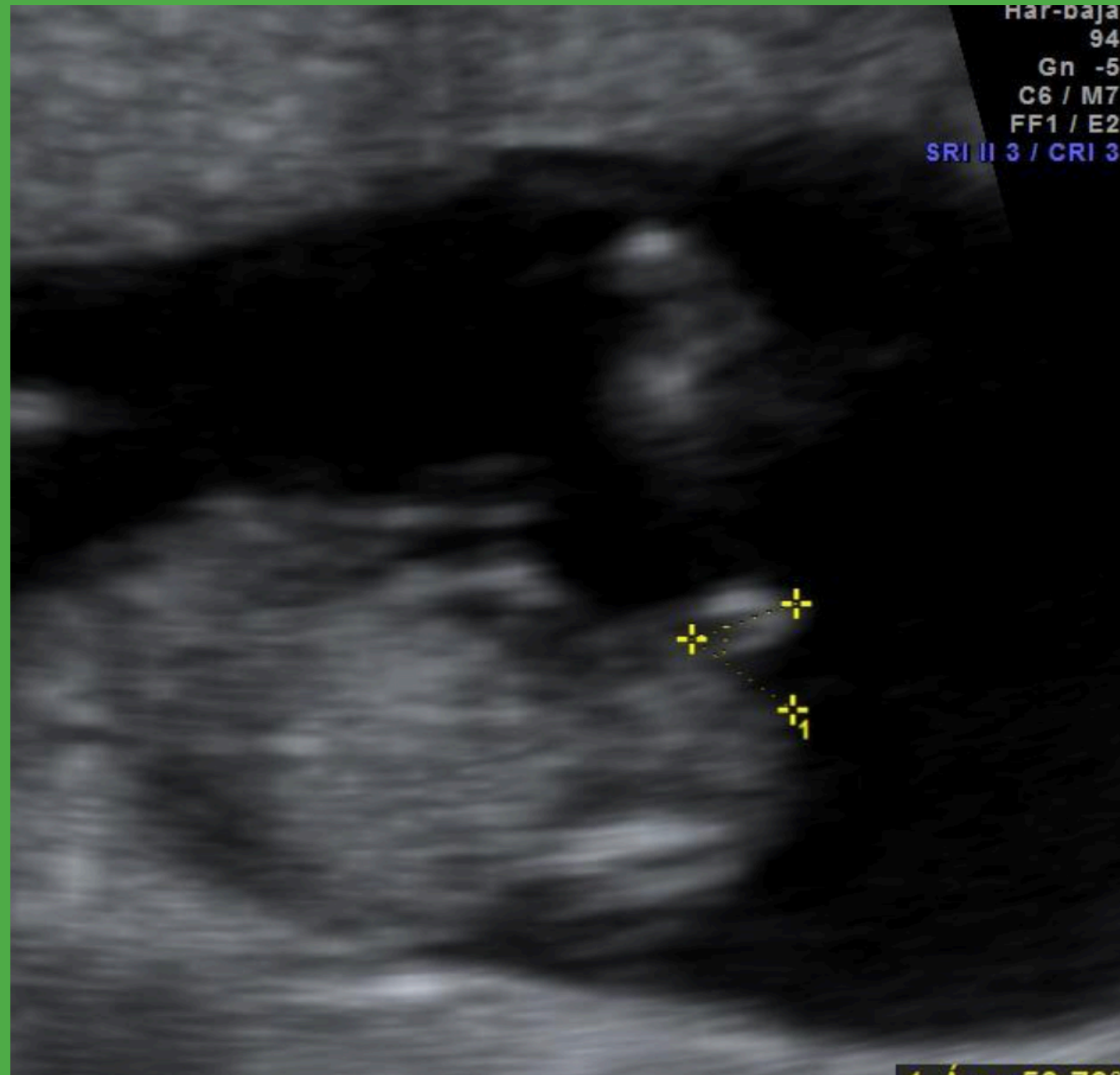


Figure II. (Angle of $53,79^\circ$ in the genitoperineal cut; corresponding to the female gender).

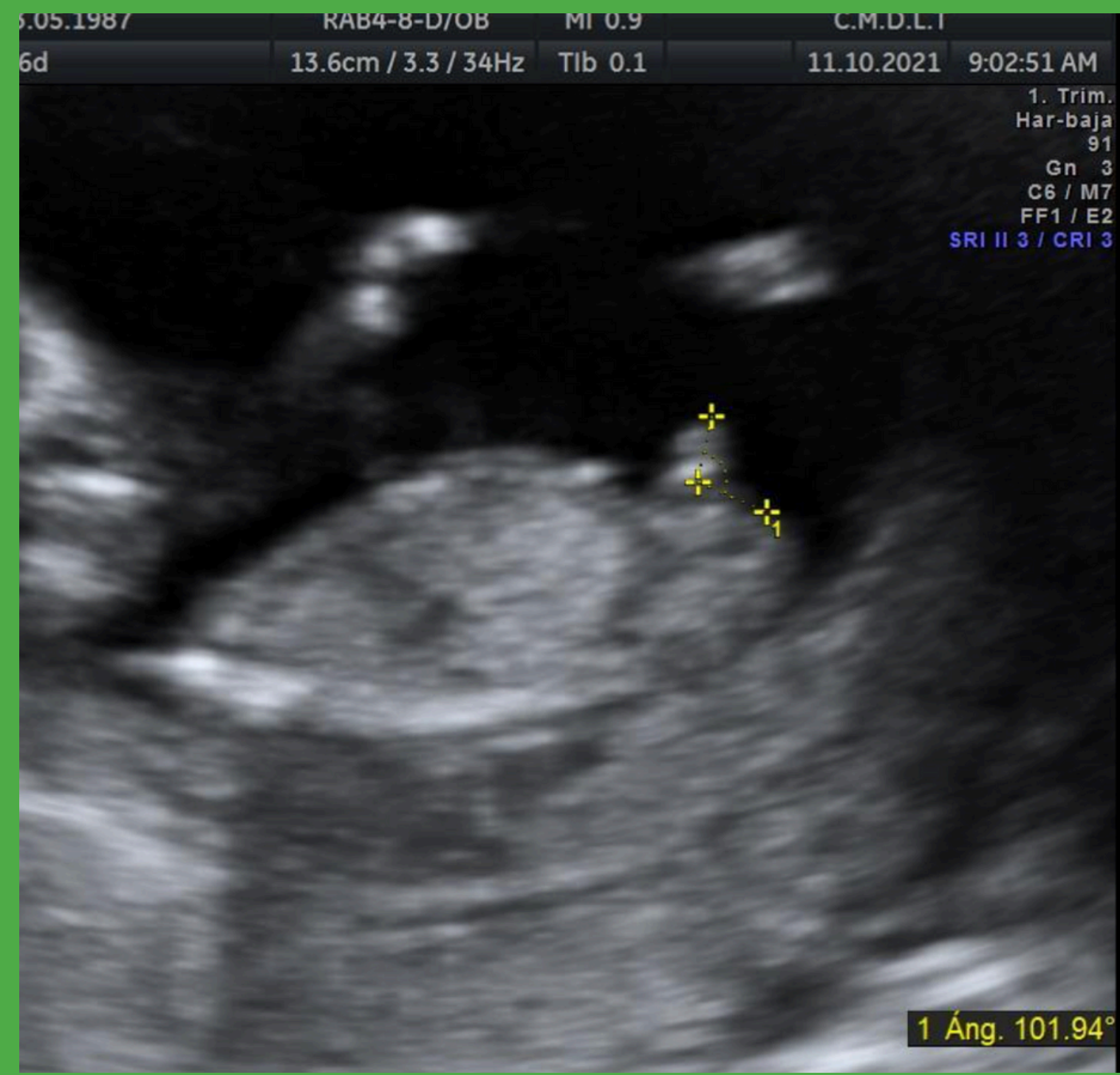


Figure III. (Angle of $101,94^\circ$ in the genitoperineal cut; which corresponds to the male gender).