

COMPARING BISHOP SCORE WITH CERVICAL LENGTH BY TVS IN PREDICTING SUCCESSFUL LABOR-INDUCTION

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INTRODUCTION:

Induction of labour -iatrogenic stimulation of uterine contraction⁽¹⁾

Bishop score – digital assessment of cervix since 1964 .⁽²⁾

Scoring - simple , less time taking

Drawback - subjective, not considers supravaginal portion of cervix⁽³⁾

TVS’ assessed cervical length – promising for its reproducibility and accurate documentation

Quantitative documentation of cervical length may also regulate caesarean section rate occurring due to failed induction or non-progress

OBJECTIVE:

Compare cervical length assessed by transvaginal sonography with Bishop score at term for predicting successful labor induction in primigravidae.

METHODOLGY:

60 Primigravidae admitted at >37weeks POG recruited after informed consent

Transvaginal assessment of cervical length done on Samsung Ultrasound System Model-HS40 with TVS probe of 5Hz

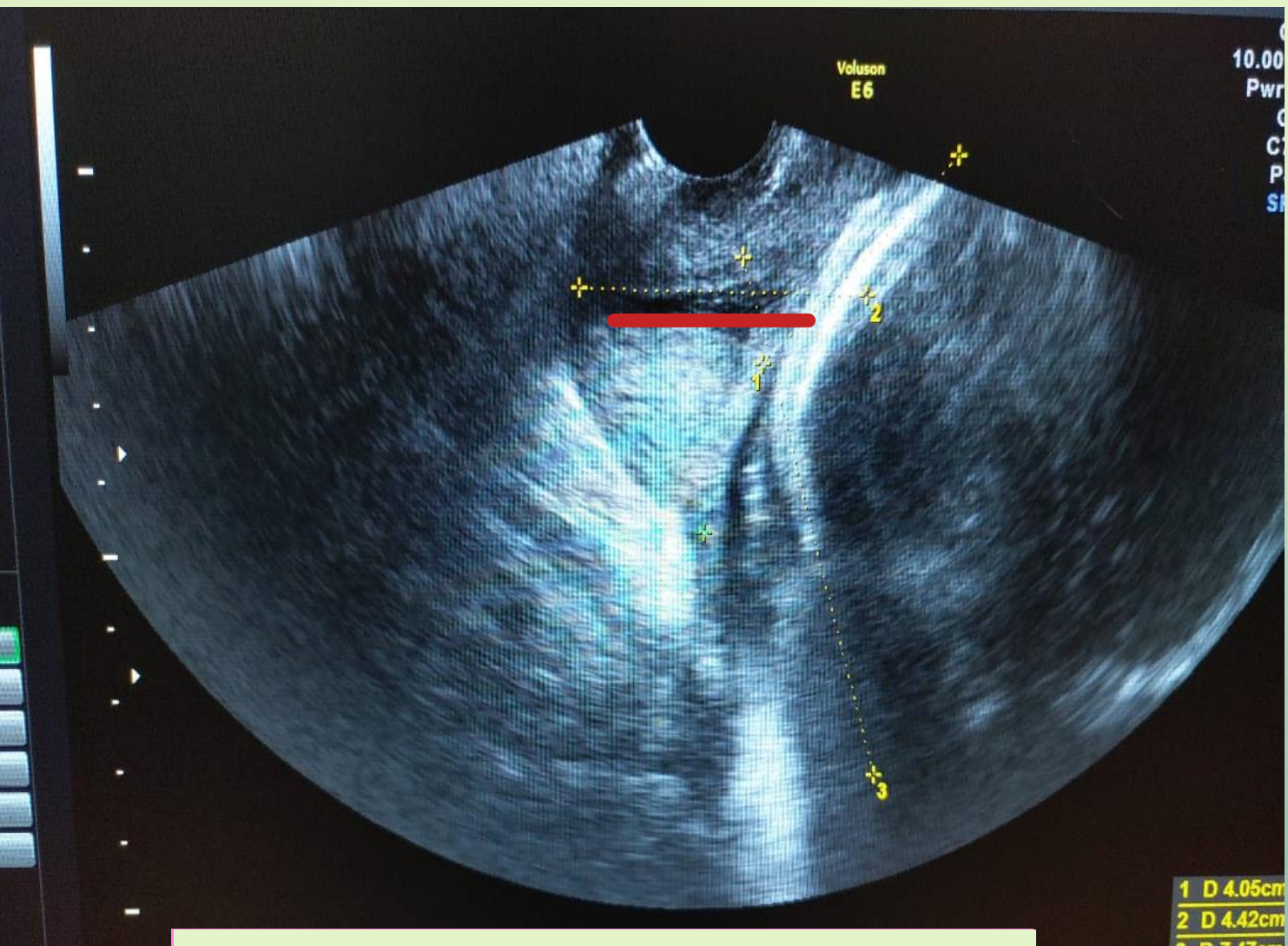


Patient monitored and followed in labour room till delivery and outcomes noted:

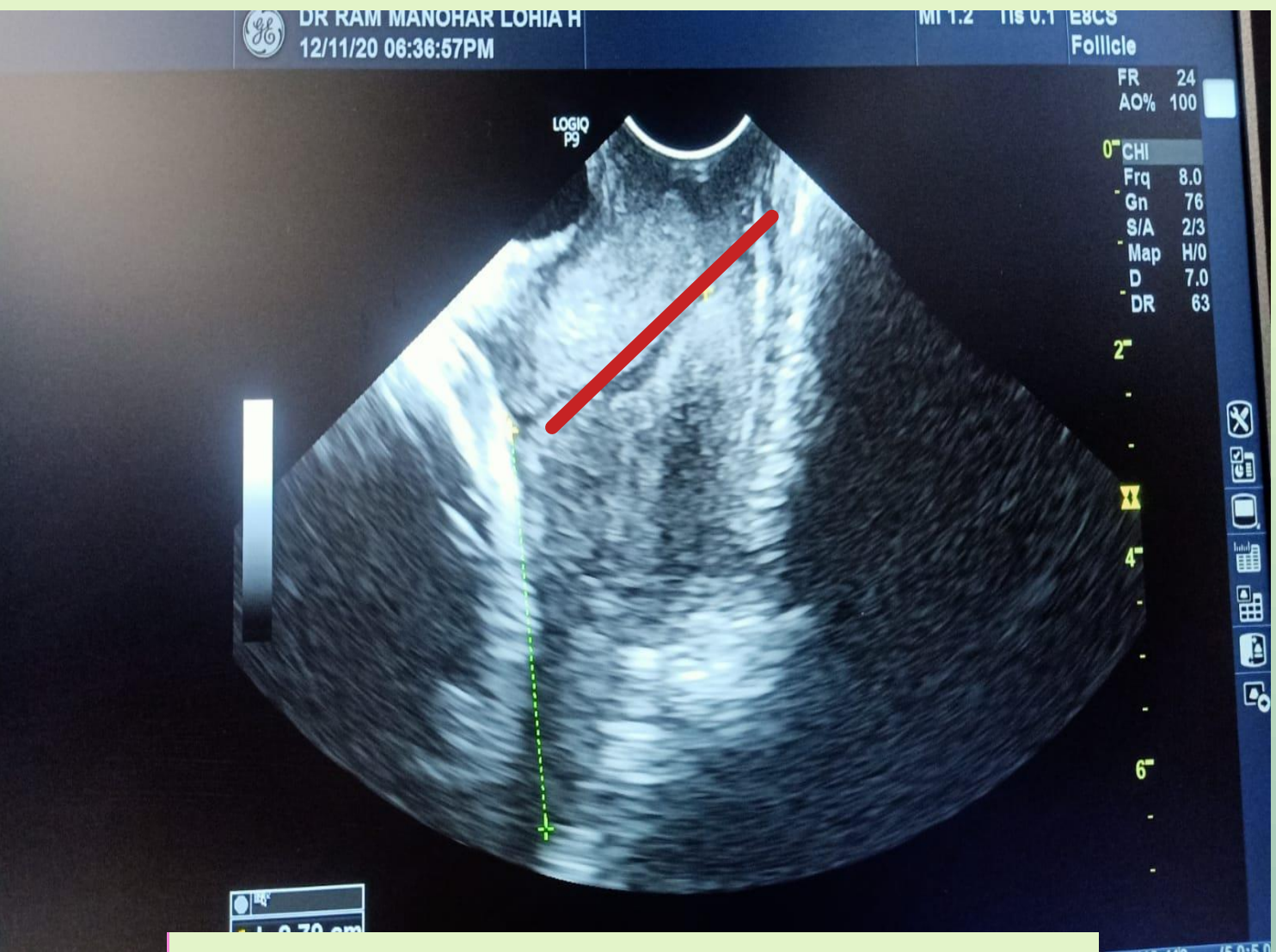
Primary outcome - successful labor induction (4cm dilatation with adequate contraction)

secondary outcome - interval to active labor and interval to delivery

Bishop score assessed digitally and patient induced with dinoprostone gel or pessary (according to patient’s choice)



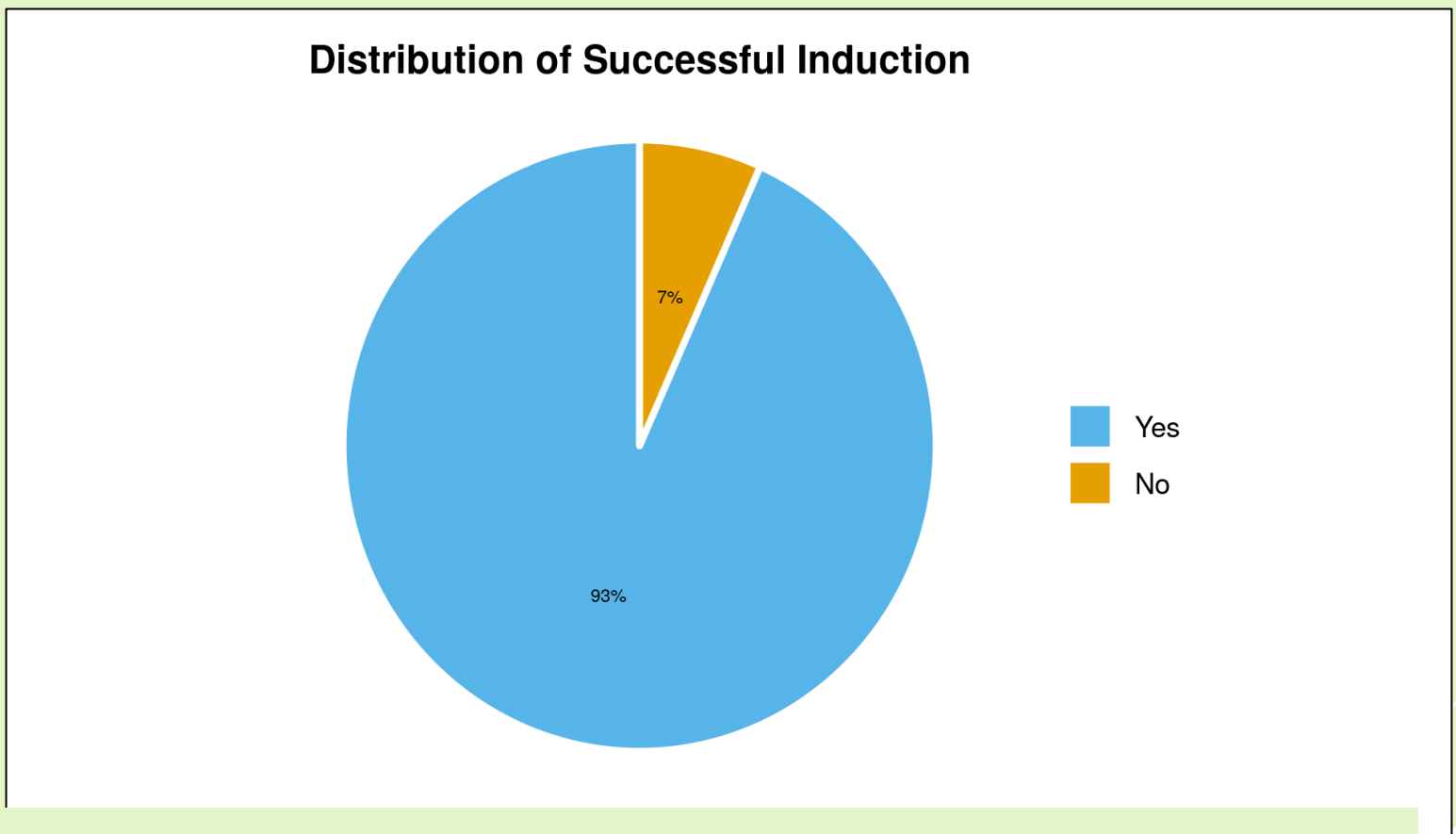
CERVICAL LENGTH - 3CM



CERVICAL LENGTH – 2.7CM

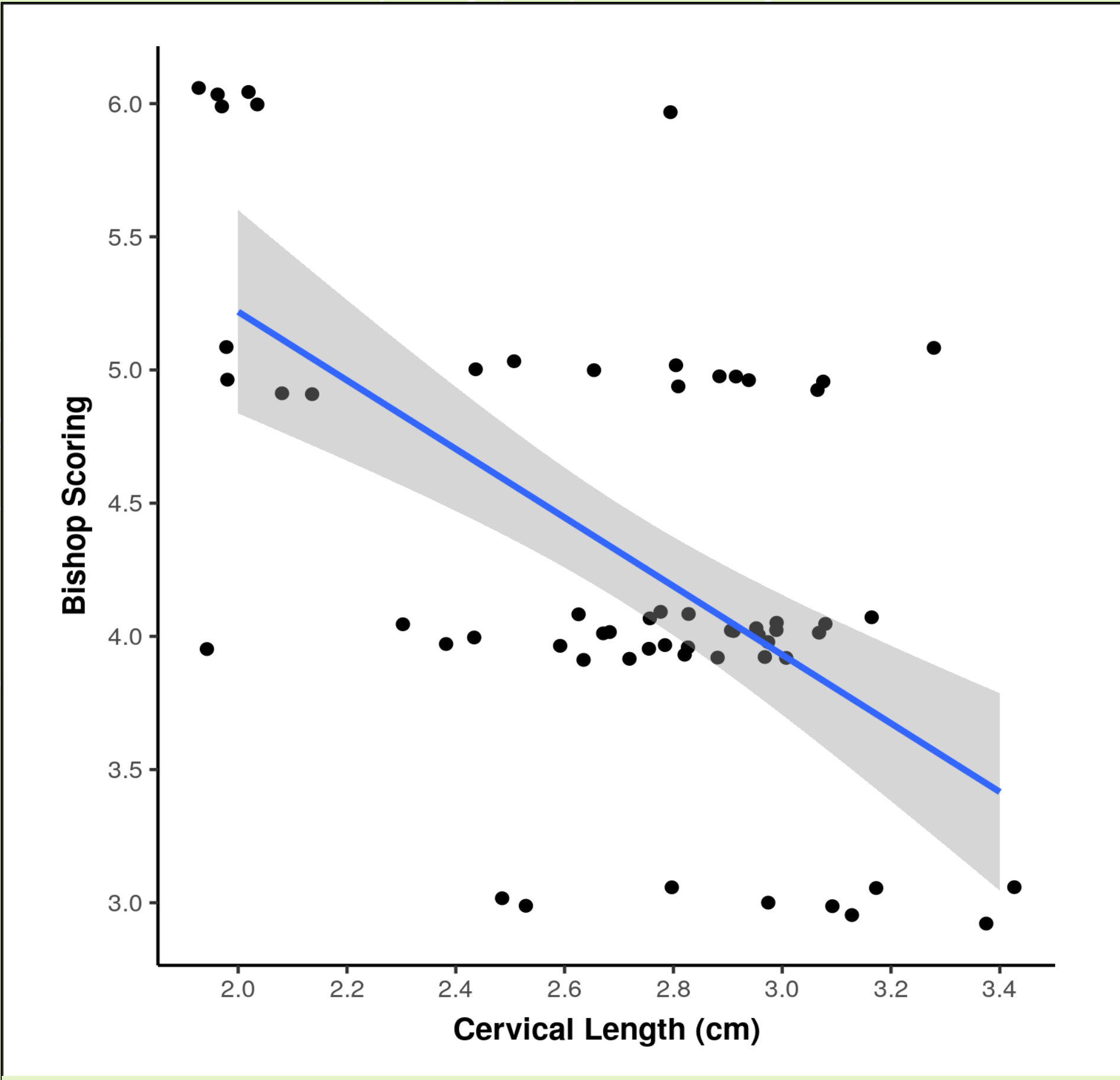
CERVICAL LENGTH MEASUREMENTS OF 2 CASES OF THE STUDY

RESULTS:



55 OF 60 CASES UNDERWENT SUCCESSFUL LABOUR INDUCTION

Cervical length (2.4cm)- 100% specificity and positive predictive value for successful induction



MODERATE NEGATIVE CORRELATION BETWEEN CERVICAL LENGTH (CM) AND BISHOP SCORE

Parameter	Change in induction to active labour interval	Change in induction to delivery interval
1 score increase in Bishop score	↓ by 3.9hours	↓ by 3.38hours
1 cm increase in cervical length	↑ by 9.3hours	↑ by 8 hours

INCREASE OF CERVICAL LENGTH, SIGNIFICANTLY INCREASED DURATION TO ACTIVE LABOUR AND DURATION TO DELIVERY .

DISCUSSION:

TVS assessed cervical length - comparable diagnostic accuracy in predicting successful labour induction
Pre defined cutoffs - prevent undergoing unnecessary prolonged induction and eventually having an operative intervention.

Drawback with Bishop score – subjective assessment and not including supravaginal portion of the cervix , may be overcome.

CONCLUSION:

With significant correlation between TVS assessed cervical length (cutoff- 2.4cm) and Bishop score, it provides higher diagnostic accuracy

References:

1. Marconi AM. Recent advances in the induction of labor. F1000Res. Oct 30 2019
2. Bishop EH. Pelvic scoring for elective induction. Obstet Gynecol. 1964 Aug;24(2):266-8.
3. Rane SM, Guirgis RR, Higgins B, Nicolaides KH. The value of ultrasound in the prediction of successful induction of labor. Ultrasound Obstet Gynecol. 2004;24(5):538-49.
4. Malhotra J. Good clinical practice recommendations FOGSI- ICOG 2018 induction of labor: GCPR.