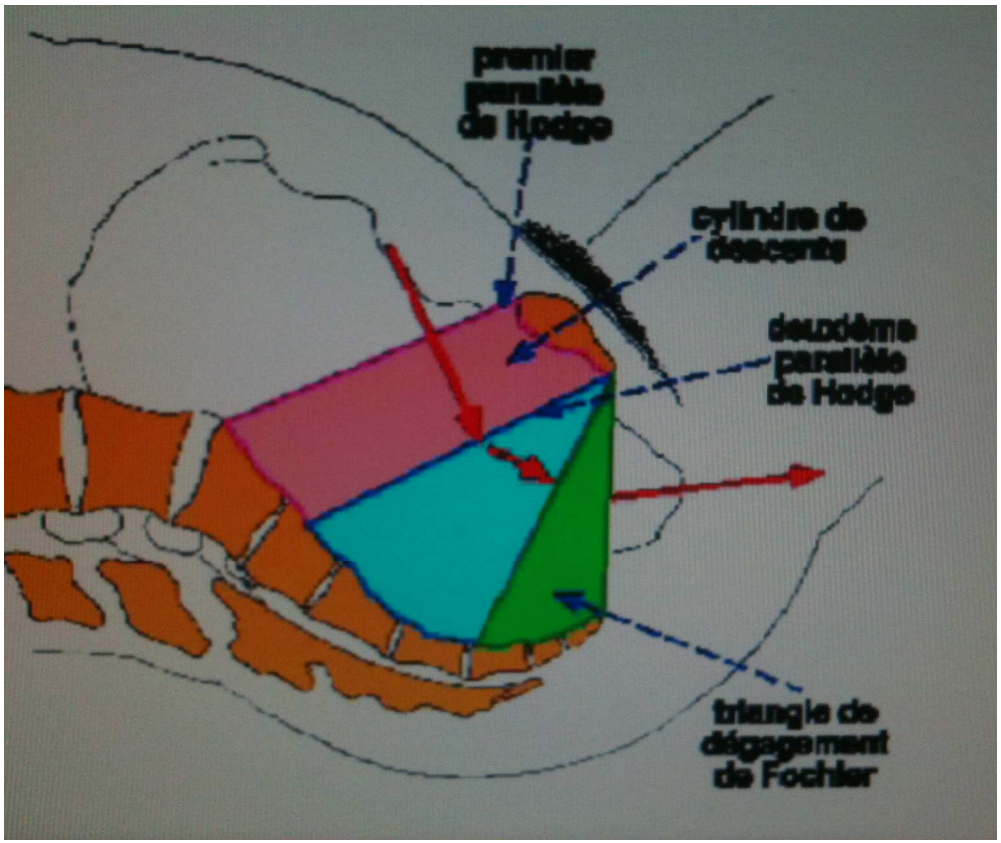
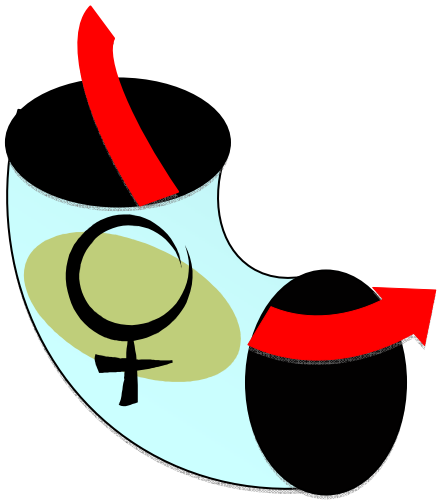
Echographie d’engagement au cours du travail

Jean-baptiste Haumonté, Raha Shojai,
Léon Boubli

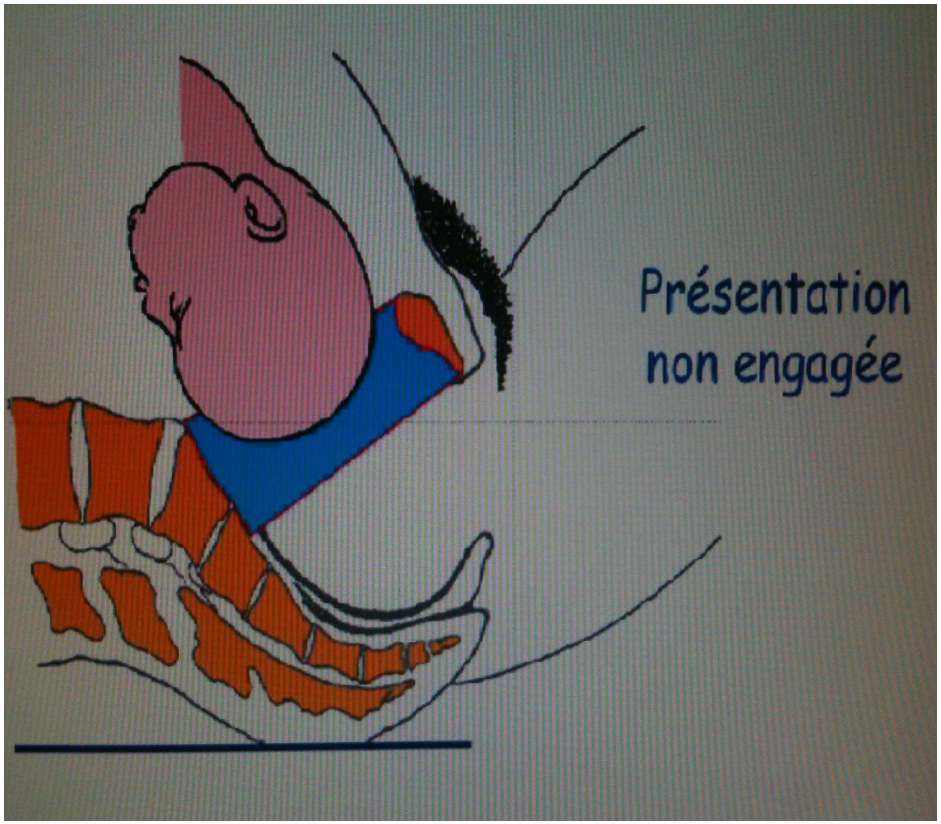
Bassin des obstétriciens

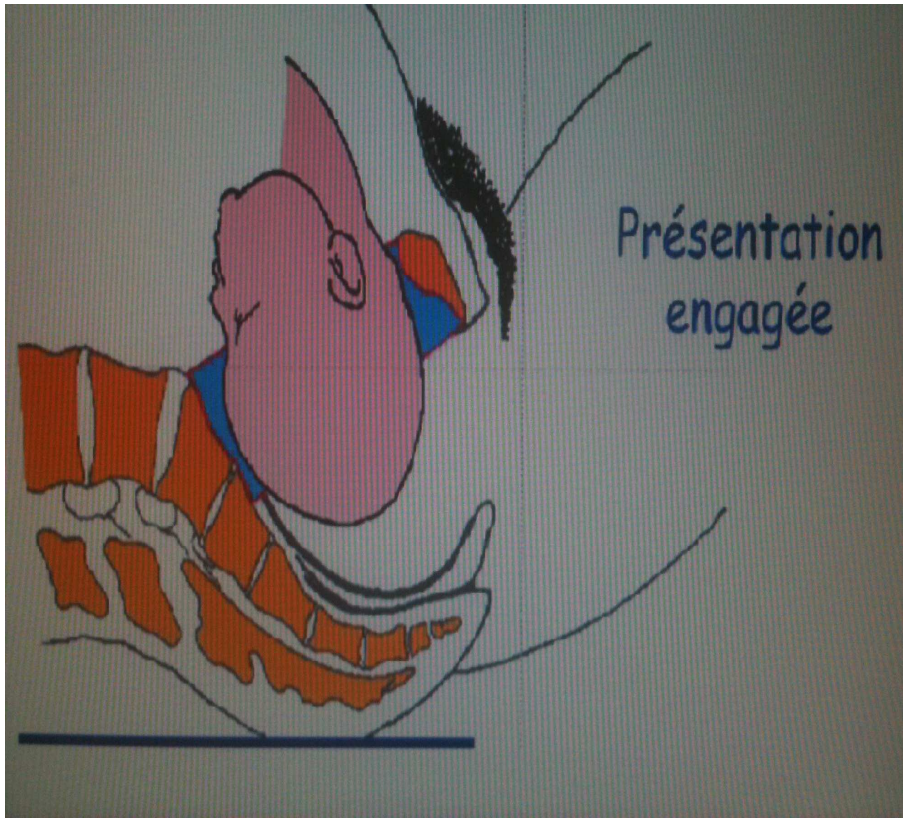




Définition

- « franchissement du détroit supérieur par le plus grand diamètre de la présentation »





- Evaluation clinique de la hauteur de la tête fœtale subjective

- Notion d’engagement est fondamantale

- De cette expertise
  - Possibilité d’accouchement par les voies naturelles
    - Voie basse spontanée
    - Extraction instrumentale
    - Césarienne

American Journal of Obstetrics and Gynecology (2005) 192, 868–74

Birth simulator: Reliability of transvaginal assessment of fetal head station as defined by the American College of Obstetricians and Gynecologists classification

Olivier Dupuis, MD,[a,b,*] Ruimark Silveira, MS,[b] Adrien Zentner, MS,[b]
André Dittmar, PhD,[b] Pascal Gaucherand, MD,[c] Michel Cucherat, MD,[d]
Tanneguy Redarce, PhD,[b] René-Charles Rudigoz, MD[a]

- mannequin de pratique obstétricale
- 32 résidents et 25 spécialistes
- Résultats
  - erreur «moyenne»
    - 30% (95% CI, 25-35%) pour les résidents
    - 34 % (95% CI, 27-41%) pour les spécialistes
  - 12% d’erreus concernant l’engagement de la tête foetale

Traumatisme crânien fœtal du per partum

- 37/700 cas lésions intracérébrales
- 24 cas (64%) : changement d'instruments
  - Forceps / ventouses
- 11 cas (30%) : césarienne après échec d'extraction instrumentale

Cranial trauma and intra-partum deaths: Confidential enquiry
BJOG (2005) 112, 619–626

Hémorragie intra crânienne à terme

	Incidence	OR
Accouchement normal	1/1900	1
Césarienne pdt le travail	1/954	2
Ventouse/forceps	1/860	2.7
Echec ventouse/forceps	1/334	5.7

Intracranial hemorrage in singleton term fetuses and mode of delivery

California database of 583,340 nulliparous singletons deliveries 2500-4000 grms: NEJM341:1709, 1999

Probability of spontaneous vaginal delivery with persistent occiput posterior

Author	Para 0 (%)	Para 1+ (%)
Floberg et al, 1987	27	-
Fitzpatrick et al, 2001	29	55
Ponkey et al, 2003	26	57

Posterior occiput: maternal morbidity

Ponkey et al: *Obstet Gynecol* 2003;101:915

Variable	OA	OP	p
3-4th degree tear	6.7	18.2	<.001
Excessive blood loss*	9.9	13.6	<.001
Post-partum infection	0.8	2.2	<.001
Fever	1.1	4.7	<.001

* > 500 ml vaginal delivery, > 1000 ml CS

Risk factors for anal sphyncter laceration with forceps

Benavides et al:Am J Obstet Gynecol (2005) 192, 1702

Variable	OR	95% CI
Posterior occipur*	3.1	1.6-6.2
Caucasian	2.3	1.1-4.5
Hispanic	0.6	0.3-1.4
Other ethnicity	4.0	1.6-9.8
Prolonged second stage	1.3	1.1-1.5
Episiotomy	3.1	1.6-5.8

* Lesions in 60% of cases

Posterior occiput: fetal morbidity

Cheng et al: *Obstet Gynecol* 2006;107:837–44

	OA	OP	OR (IC 95%)
Apgar 5' < 7	1.9	3.8	1.50(1.17-1.91)
Acidemia	0.5	1.8	2.92 (1.84-4.62)
Meconium	22.7	32.3	1.29 (1.17-1.42)
Fetal trauma	0.8	1.4	1.77 (1.22-2.57)
NICU	3.1	5.6	1.57 (1.28-1.92)
Neonatal morbidity	6.0	10.7	1.45 (1.24-1.65)

Encephalopathy in term infants

Badawi: BMJ 1998; 317:1154

Variable	OR	IC 95%
Sentinel event	4,44	1,30-15,22
Posterior occiput	4,29	1,74-10,54
Operative delivery	2,34	1,16-4,70
Emergency CS	2,17	1,01-4,64
Elective CS	0,17	0,05-0,56

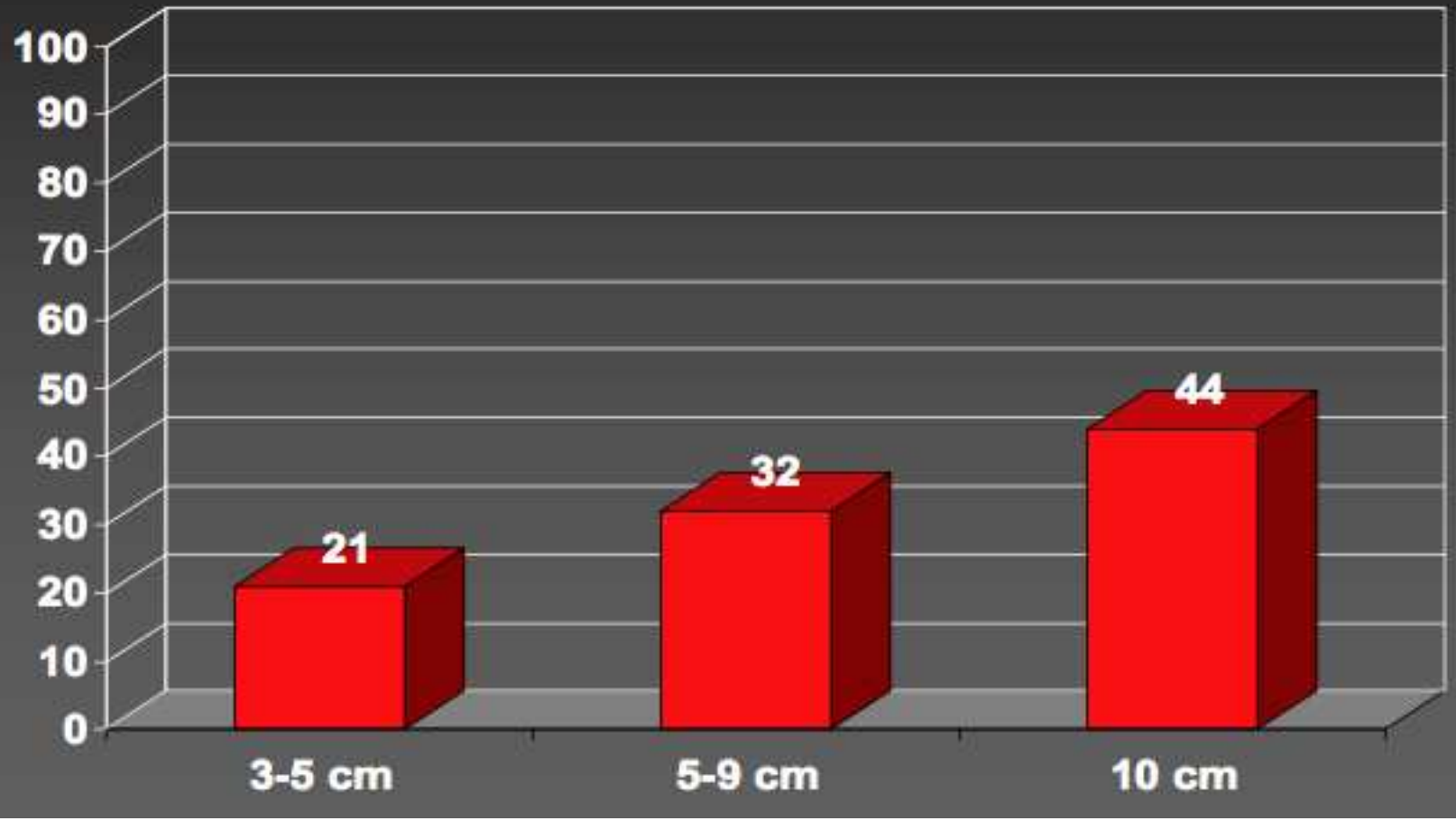
Errors in the clinical prediction of posterior occiput

Akmal et al: *Ultrasound Obstet Gynecol* 2003; **21**: 437–440

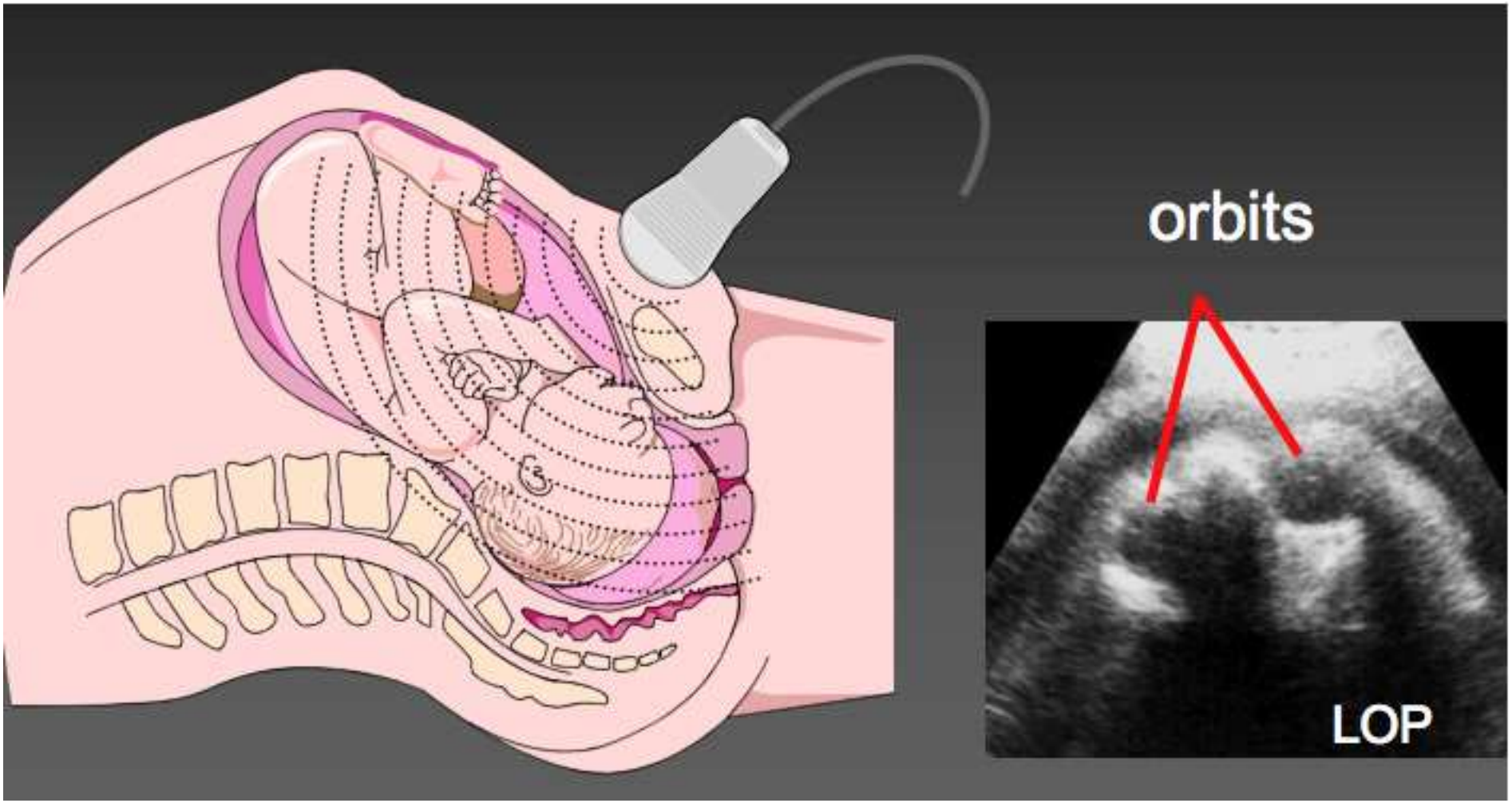
	% error
Overall	26.6
Anterior occiput	17%
Lateral or posterior occiput	46%

Probability of persistent occiput posterior at delivery

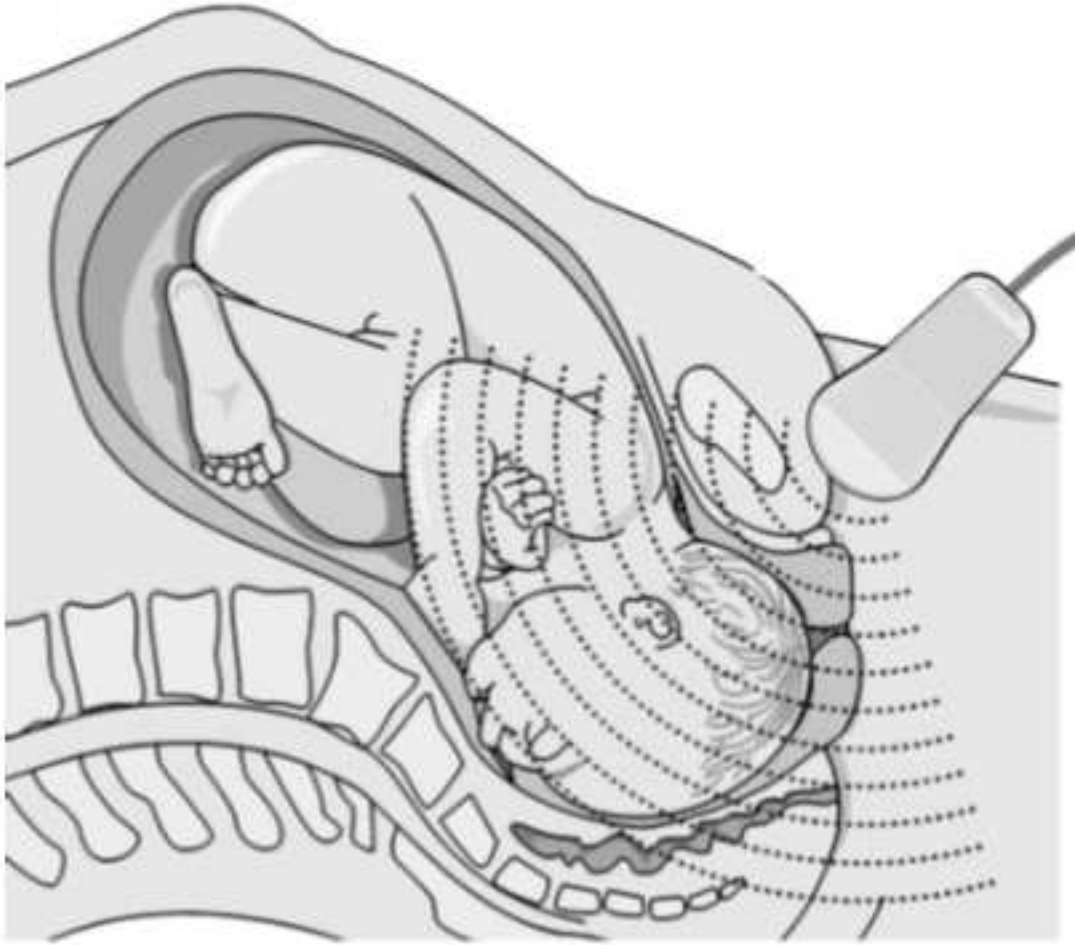
Akmal et al: Ultrasound Obstet Gynecol 2004; 24: 425



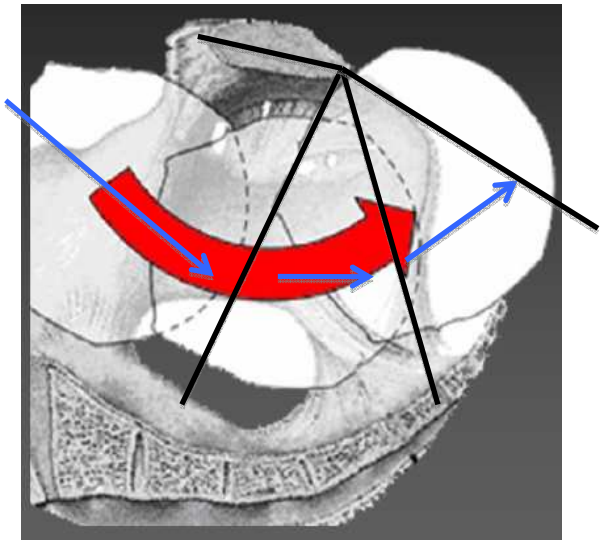
Diagnostic echographique



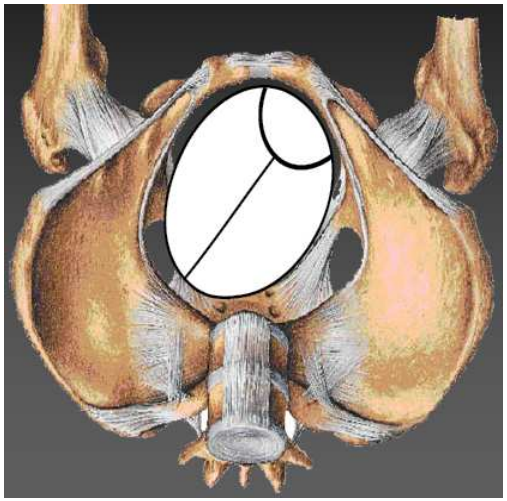
L’idée de l’échographie translabiale



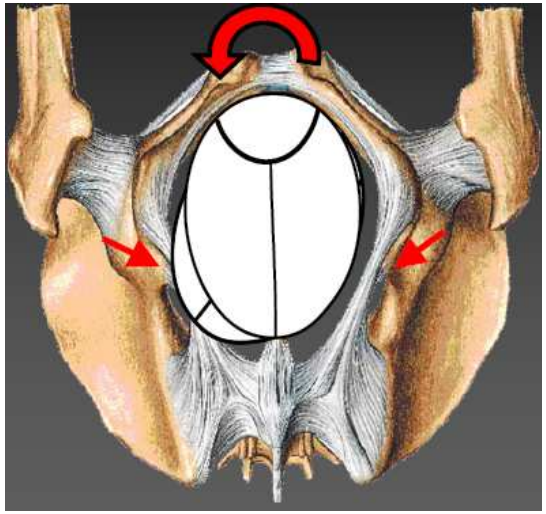
Engagement et descente de la présentation fœtale

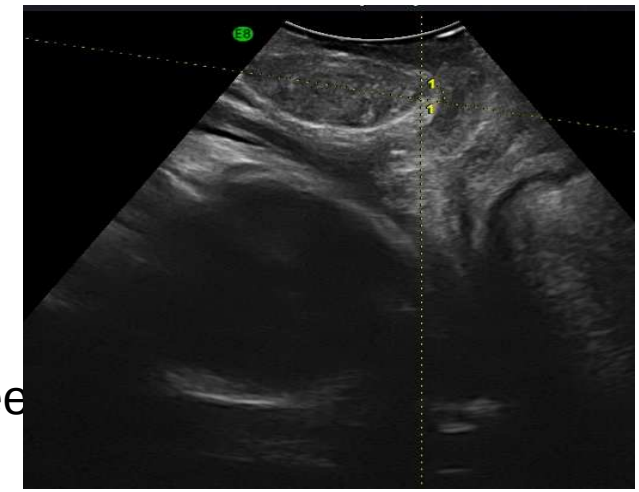


Detroit supérieur



Excavation
pelvienne
Detroit moyen





Présentation non engagée
Angle > 45°

Présentation engagée
Angle < 45°

Ultrasound Obstet Gynecol 2006; **28**: 753–760
Published online in Wiley InterScience (www.interscience.wiley.com). **DOI:** 10.1002/uog.3848

Intrapartum translabial ultrasound (ITU): sonographic landmarks and correlation with successful vacuum extraction

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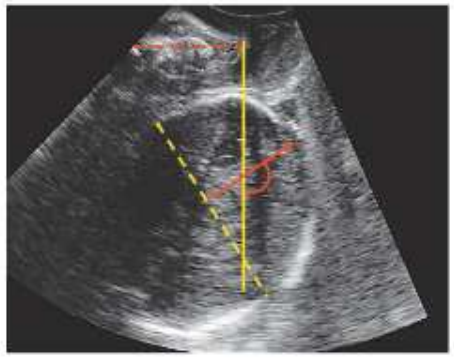
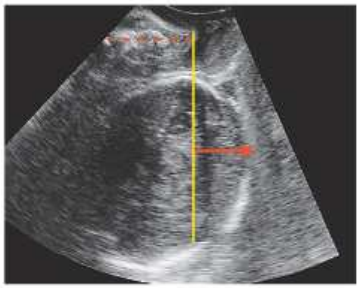
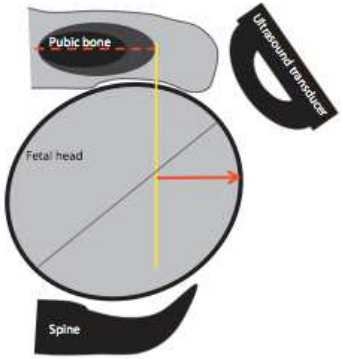
*Departments of *Obstetrics and †Radiology, Charité Virchow Clinic, Berlin and ‡Heinrich-Heine-University, Düsseldorf, German*







Ultrasound Obstet Gynecol 2006; **27**: 409–415
Published online in Wiley InterScience (www.interscience.wiley.com). **DOI:** 10.1002/uog.2731

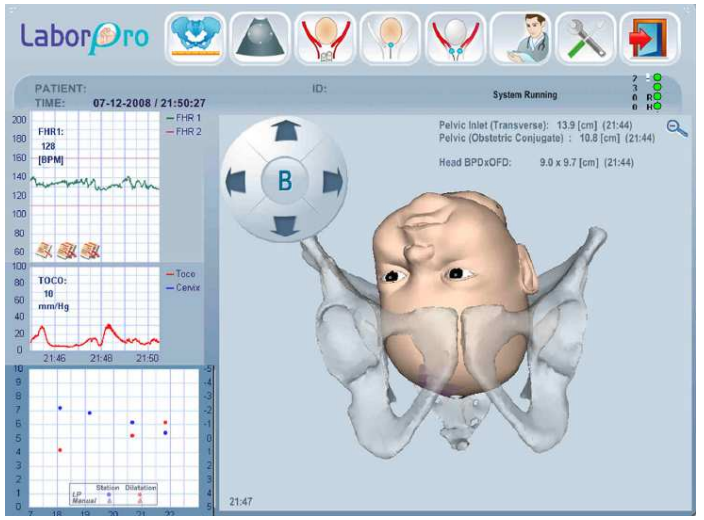
Predicting operative delivery

H. P. DIETZ, V. LANZARONE and J. M. SIMPSON

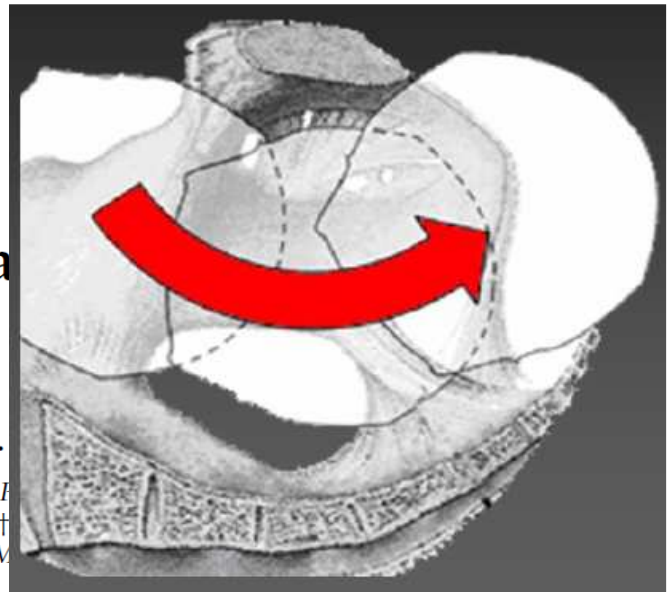
University of Sydney, Camperdown and Penrith, Australia

Determination of fetal head station and position during labor: a new technique that combines ultrasound and a position-tracking system

Jacky Nizard, MD; Shoshana Haberman, MD, PhD; Yoav Paltieli, MD, PhD; Ron Gonen, MD; Gonen Ohel, MD; Yannick Le Bourthe; Yves Ville, MD



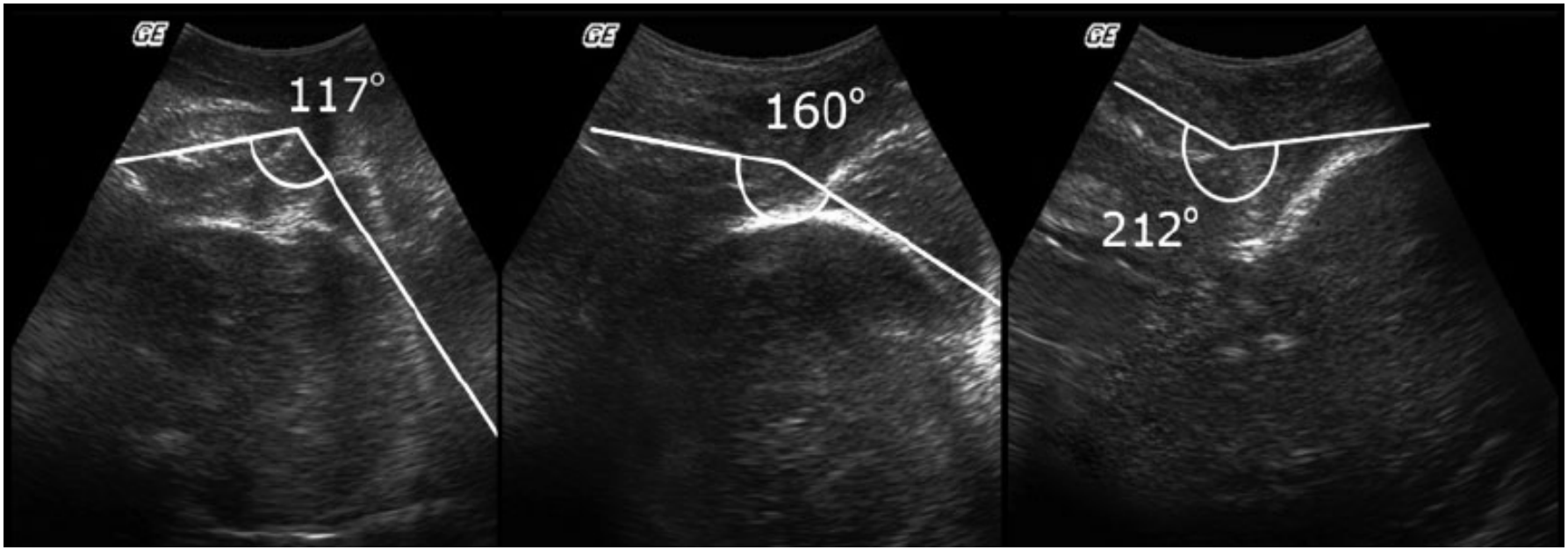
Ultrasound Obstet Gynecol 2009; **33**: 313–319
Published online in Wiley InterScience (www.interscience.wiley.com). **DOI:** 10.1002/uog.6329

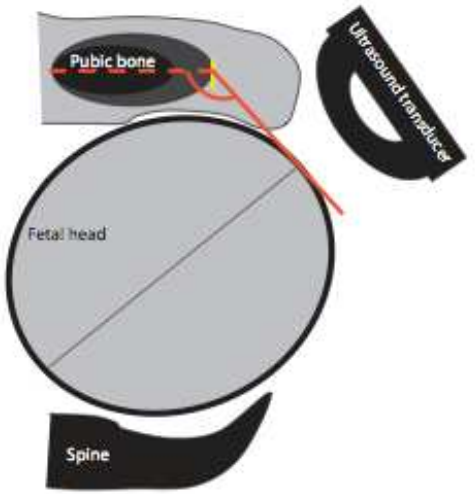


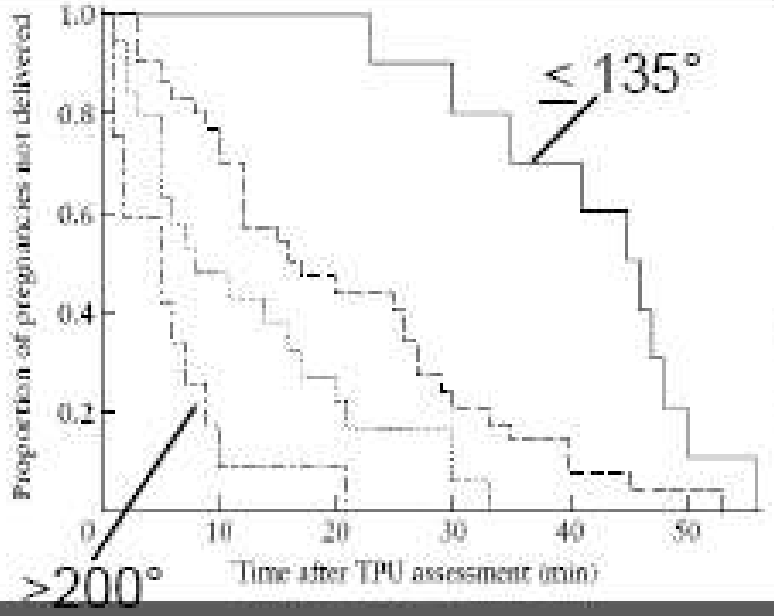
A new method to assess fetal head descent in la with transperineal ultrasound

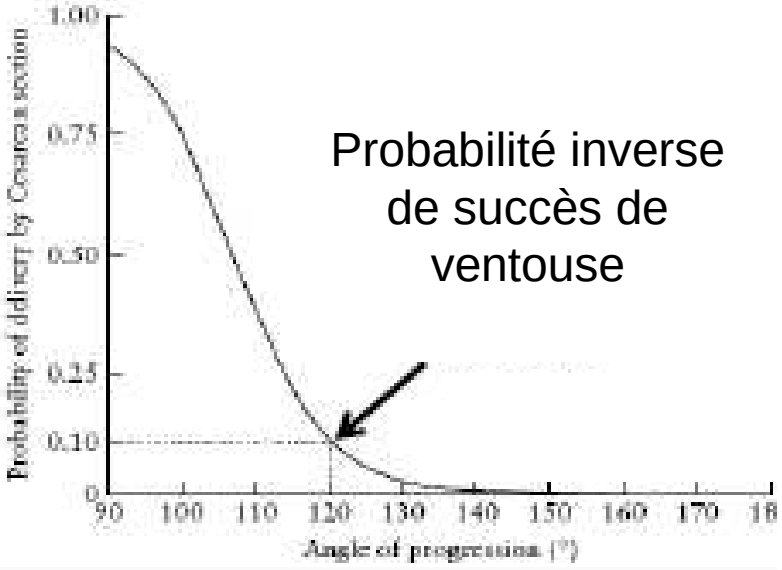
A. F. BARBERA*, X. POMBAR†, G. PERUGINO‡, D. C. LEZOTTE§ and J. C.

**Department of Obstetrics and Gynecology, Denver Health Medical Center, Denver and Departments of §I Biometrics and ¶Obstetrics and Gynecology, University of Colorado School of Medicine, Aurora, CO and † Gynecology, Rush University, Chicago, IL, USA and ‡Department of Obstetrics and Gynecology, IRCCS M*







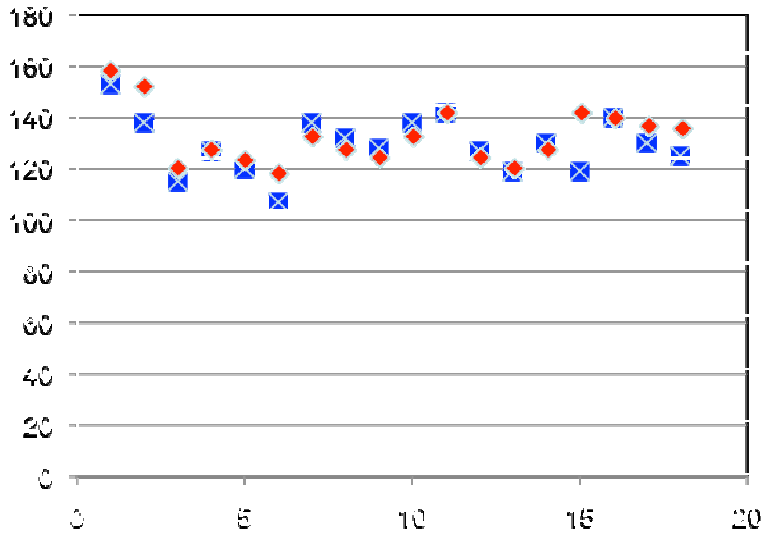


Probabilité inverse de succès de ventouse

Barbera et al.
Ultrasound Obstet Gynecol 2008; 33: 313–319

Kalache et al.
Ultrasound Obstet Gynecol 2009; 33: 326–330

Etude hôpital nord



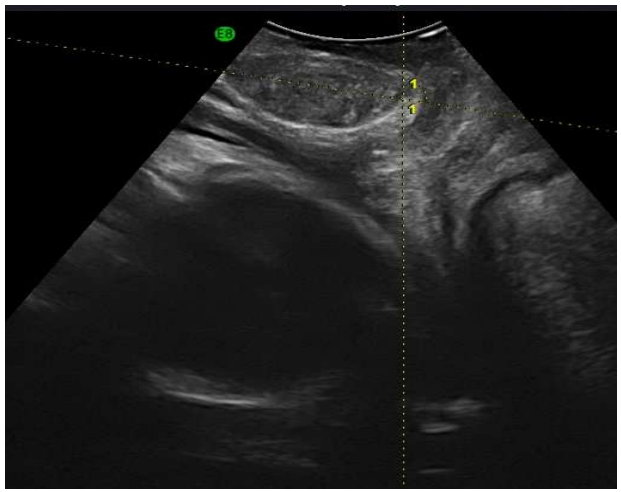
40 patientes à terme

Présentation céphalique OP

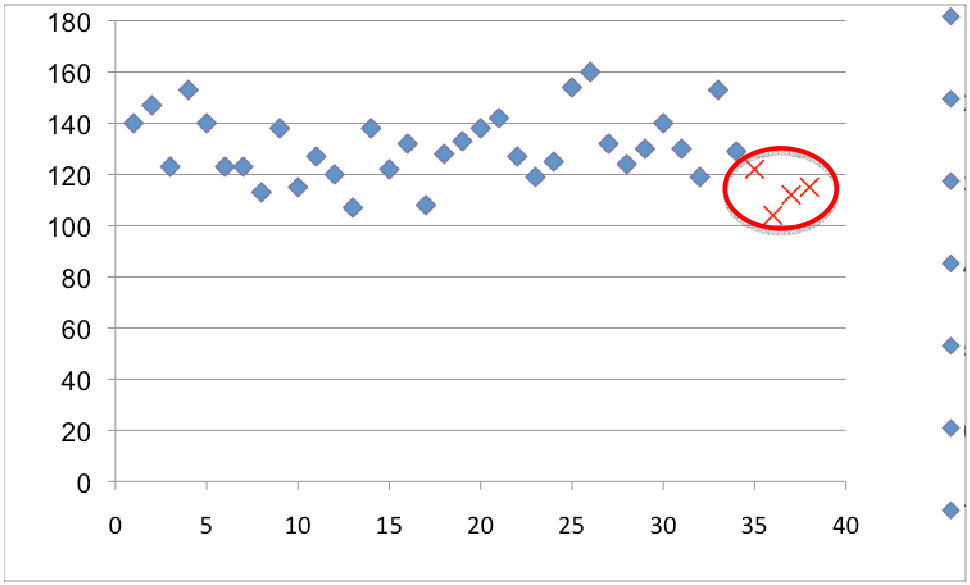
Dilatation complète

Mesure angle tête fœtale-symphyse

Mode d’accouchement



Etude hopital Nord



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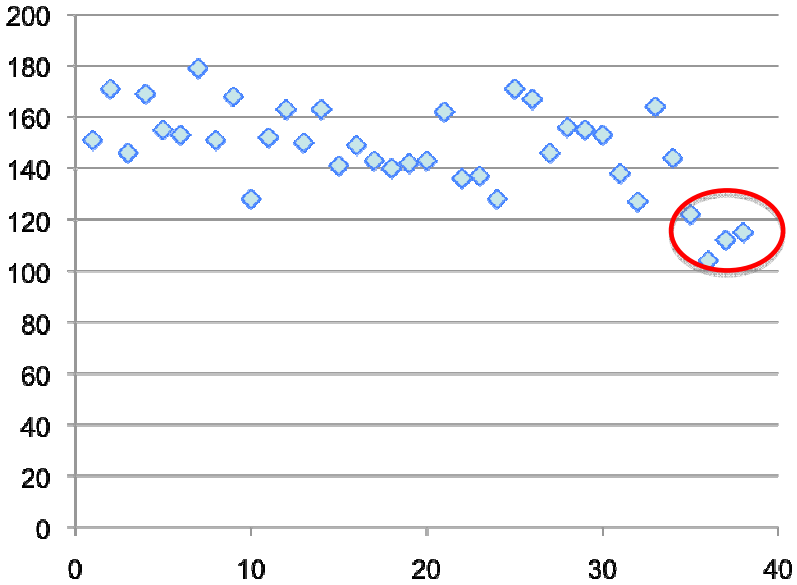

Effort expulsif

conclusions

- L’échographie a révolutionné l’obstétrique
- Corrélation entre échographie et progression du travail
- Méthode reproductible
- Avantage de visualiser la descente de la tête fœtale
- Outils complémentaires et non un remplacement du sens clinique