



LAURENT SALOMON

GIÁO SƯ

Đại học Paris Descartes

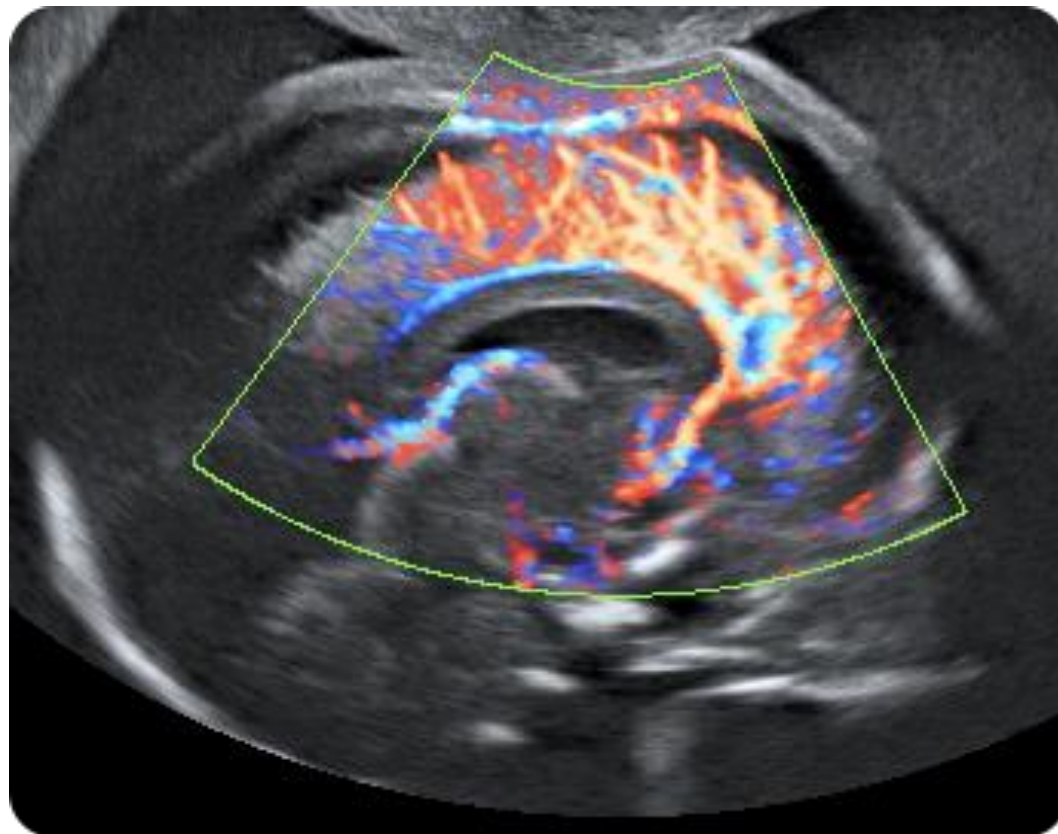
Pháp

HỘI NGHỊ SẢN PHỤ KHOA
VIỆT - PHÁP - CHÂU Á - THÁI BÌNH DƯƠNG
LẦN THỨ
TP. HỒ CHÍ MINH, 19 & 20/5/2016

16

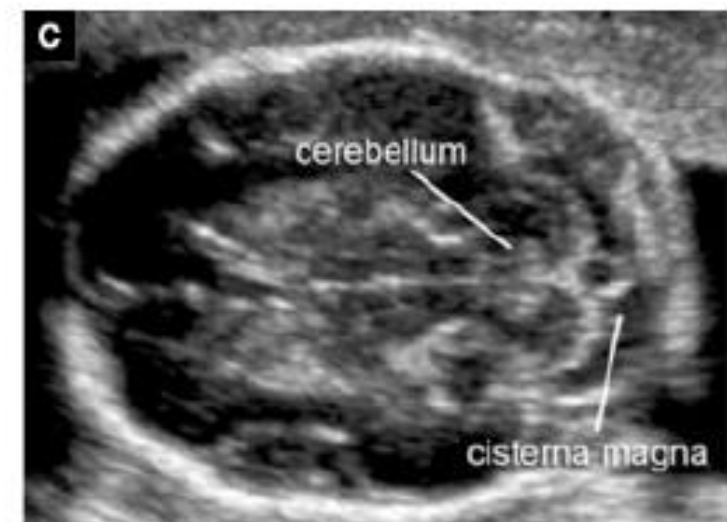
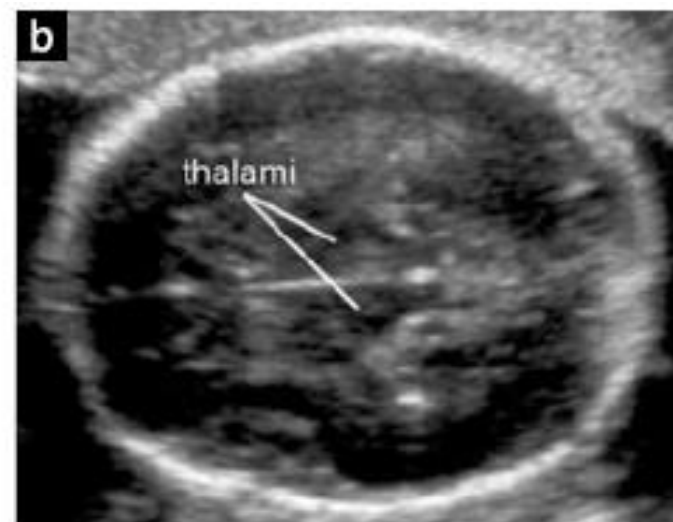
Đánh giá não bộ thai nhi

Laurent J SALOMON & Anne-Elodie MILLISCHER



Special thanks to JP Bault

SONOGRAPHIC APPEARANCE OF FETAL ANATOMY: (N=Normal; Ab=Abnormal*; NV=Not visualized) Gray=optional	N	Ab*	NV
Head			
Shape			
Cavum septi pellucidi			
Midline falx			
Thalami			
Lateral ventricle			
Cerebellum			
Cisterna magna			



Ultrasound Obstet Gynecol 2007; 29: 109–116

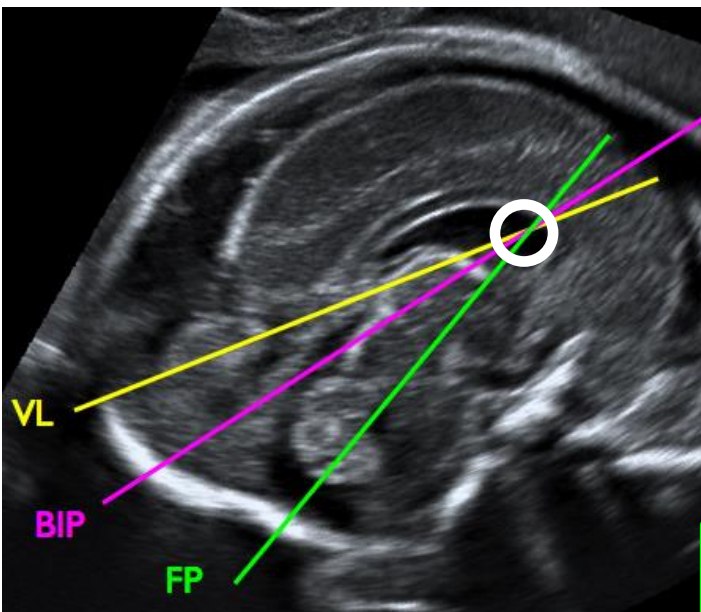
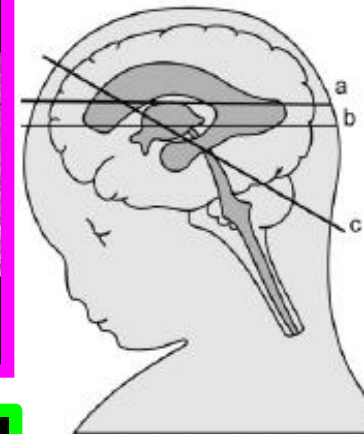
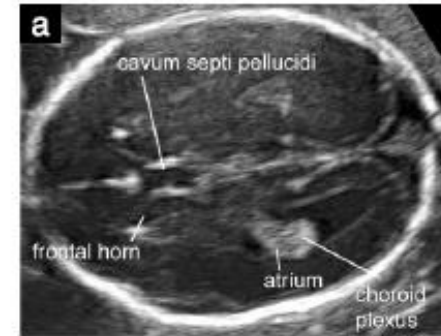
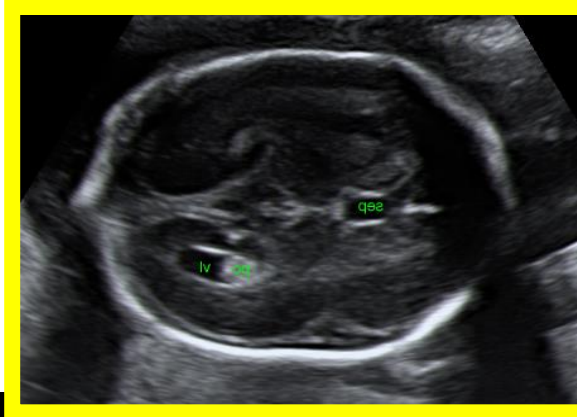
Published online in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/uog.3909

THE INTERNATIONAL SOCIETY OF
The ISUOG logo consists of a square frame containing a stylized human figure on the right and a series of horizontal lines on the left, with a small circular icon at the top left. Below the frame, the letters 'I S U O G' are arranged in a row.
ULTRASOUND
in Obstetrics & Gynecology

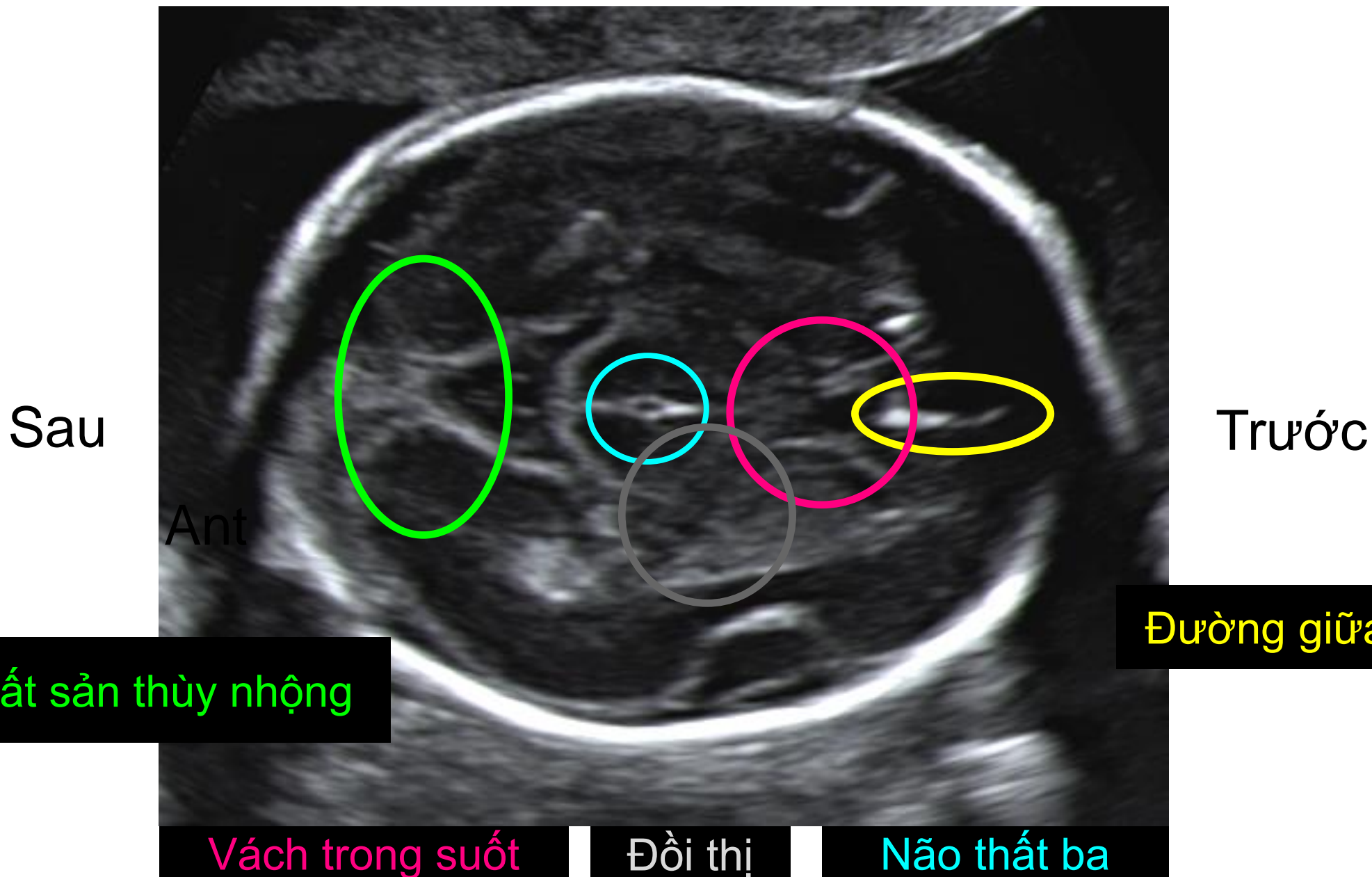
GUIDELINES

Sonographic examination of the fetal central nervous system: guidelines for performing the ‘basic examination’ and the ‘fetal neurosonogram’

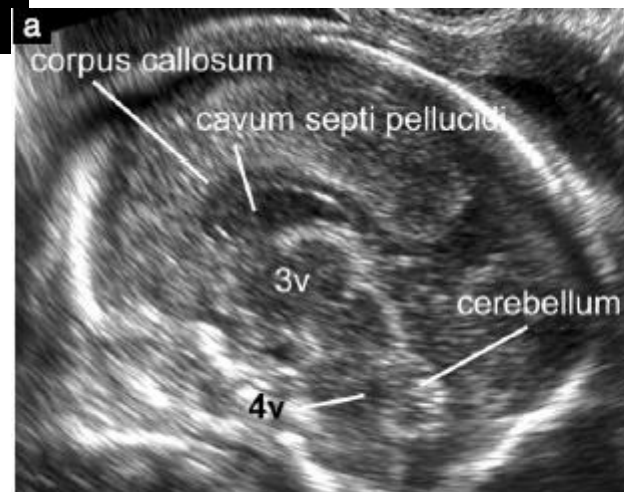
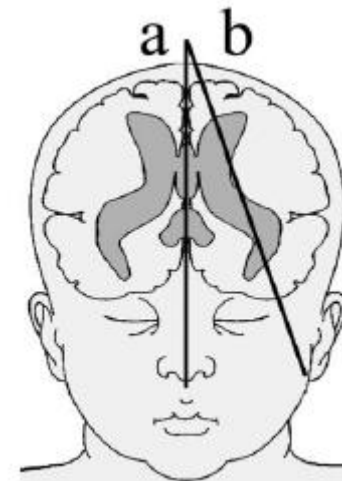
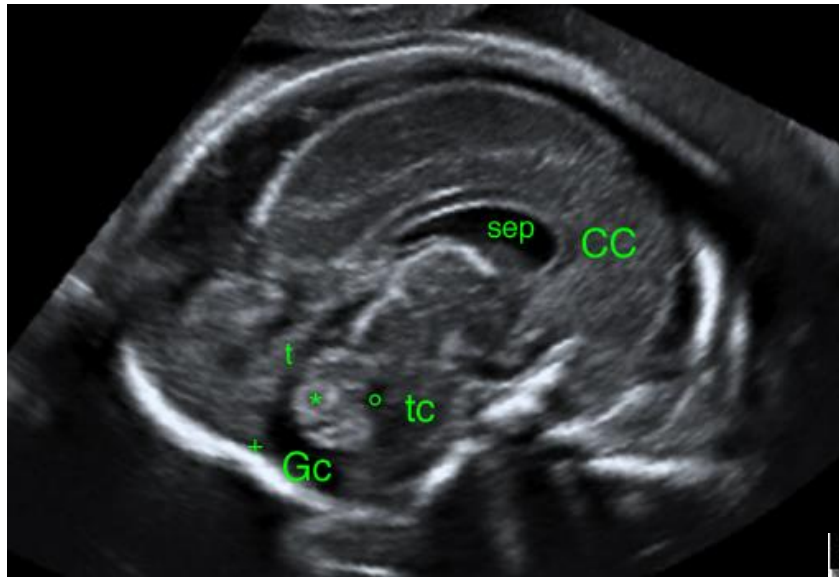
Mặt cắt dọc

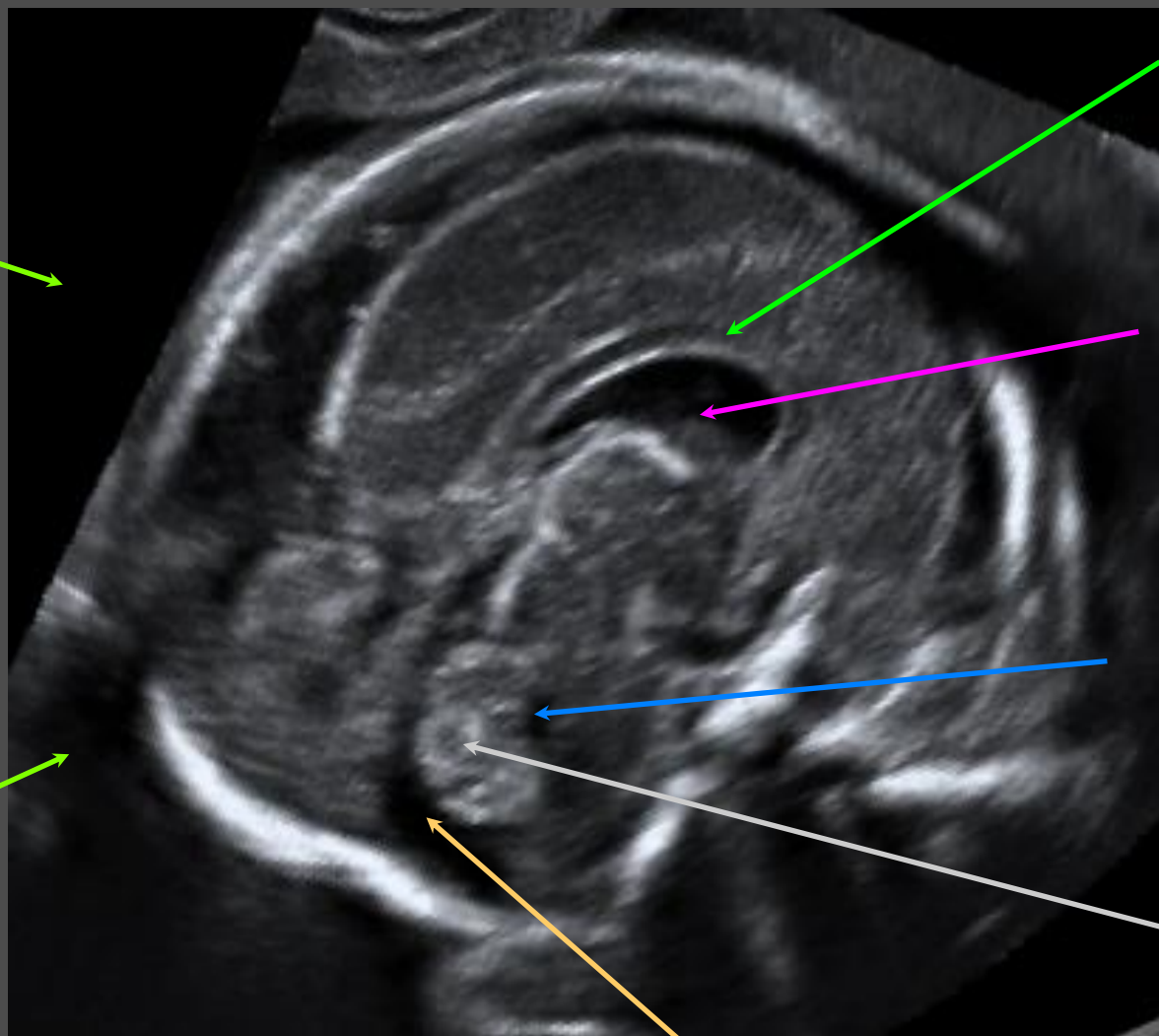
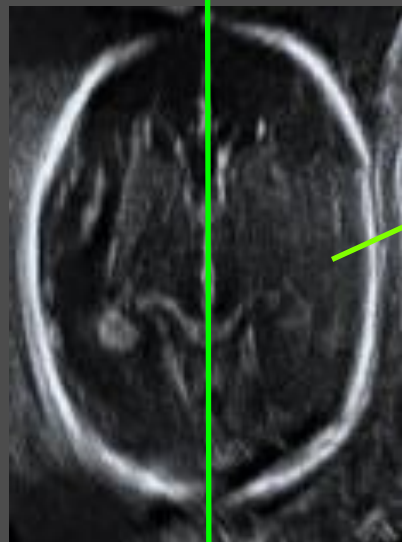
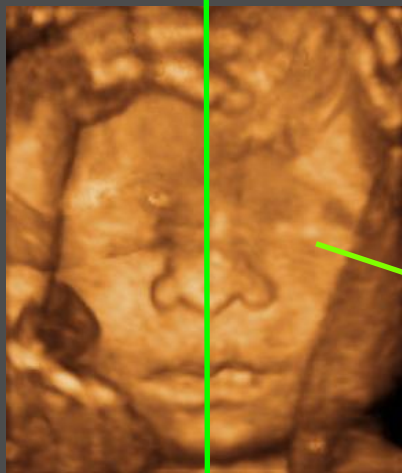


Images © JP Bault



Đứng dọc





Thể chai

Vách trong suốt

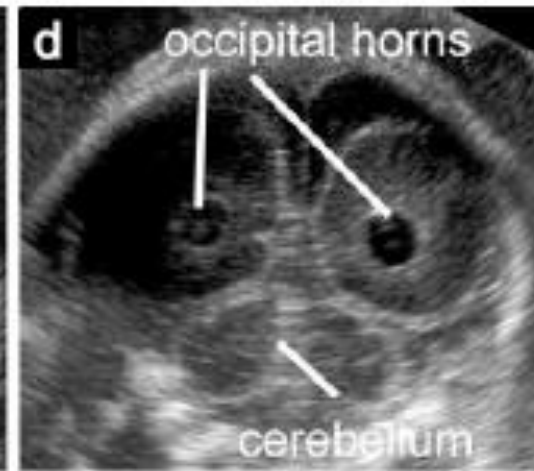
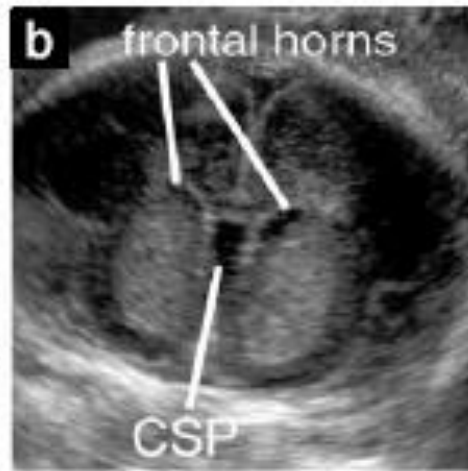
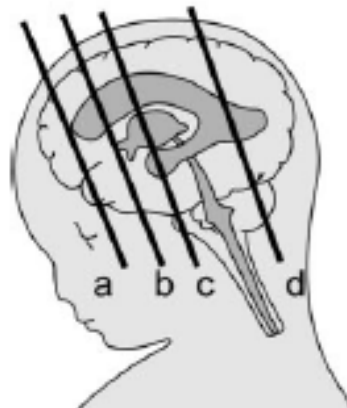
Não thất 4

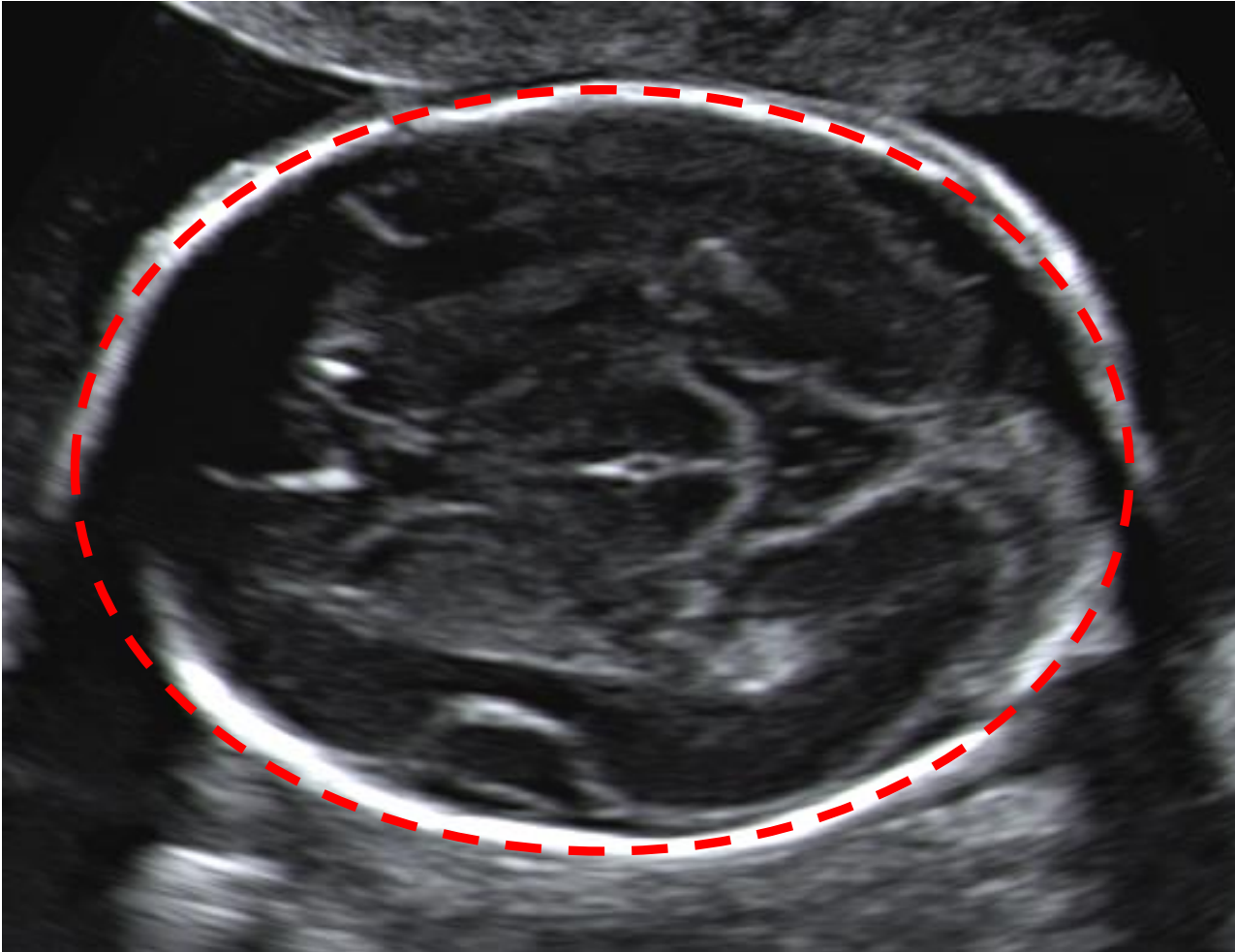
Thùy nhộng
tiểu não

Hố sau

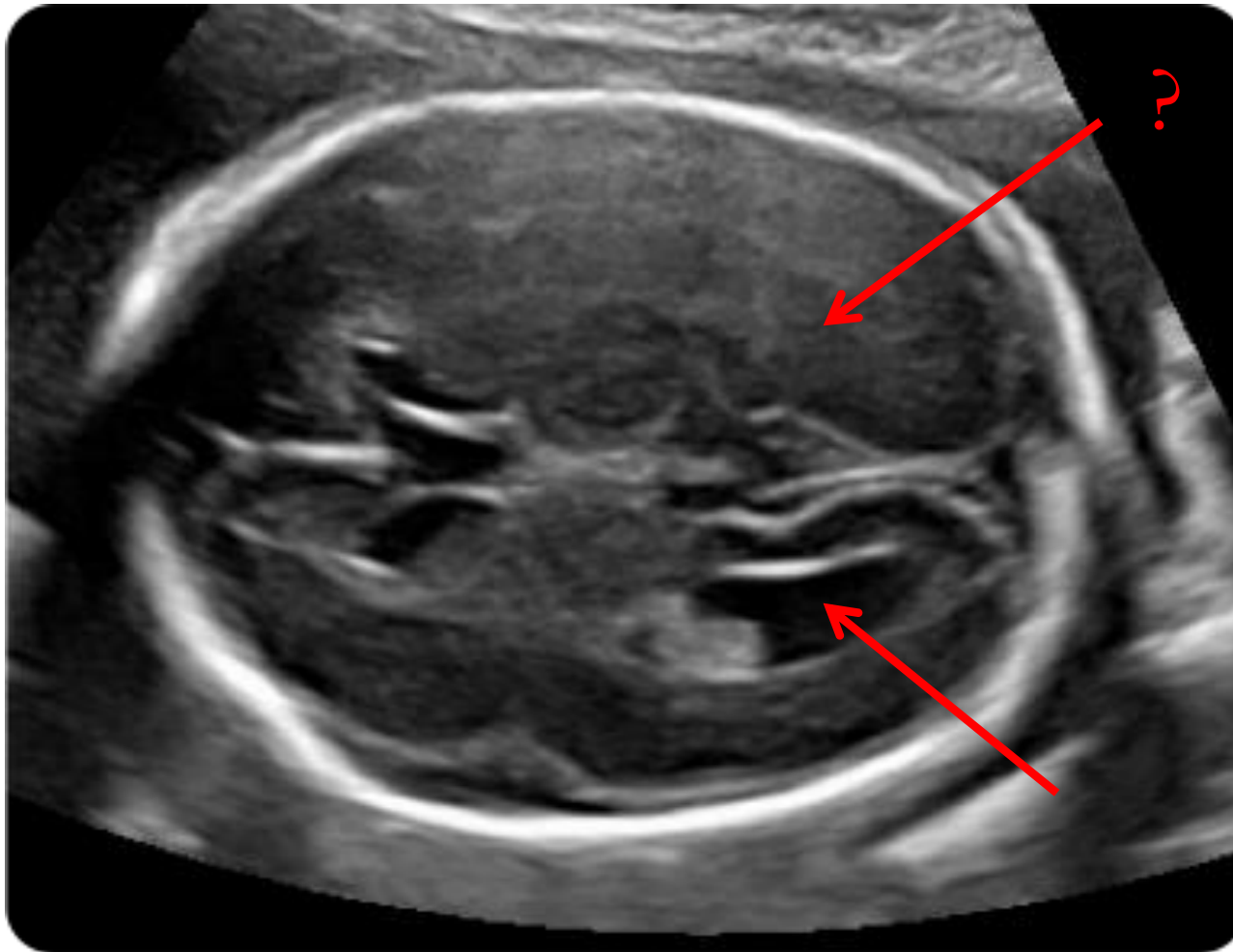
Images © JP Bault

Mặt cắt ngang/trán

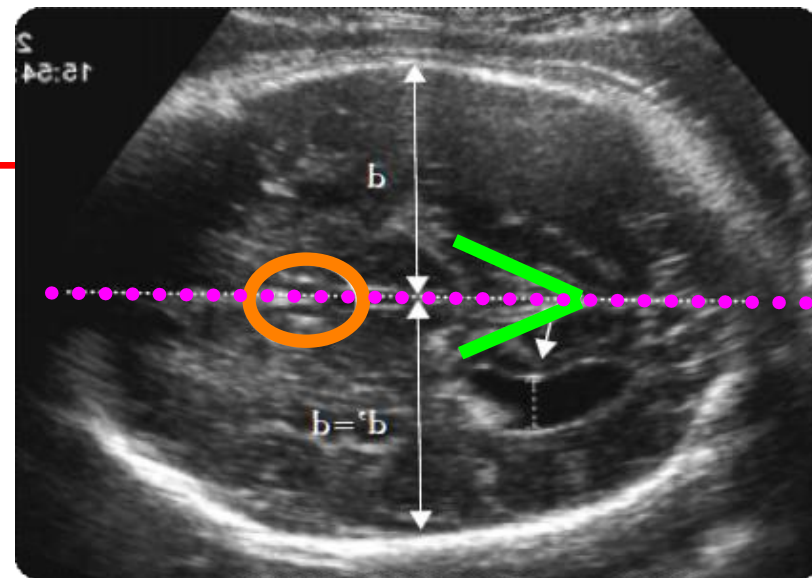
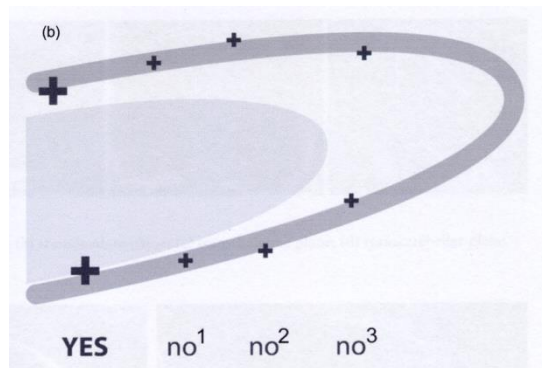




- Hộp sọ :
 - Kích thước,
 - Hình dạng,
 - Sự liên tục
 - Và mật độ xương



- Não thất bên:
 - Kích thước,
 - Hình dạng,
 - Thành
 - X 2 ++



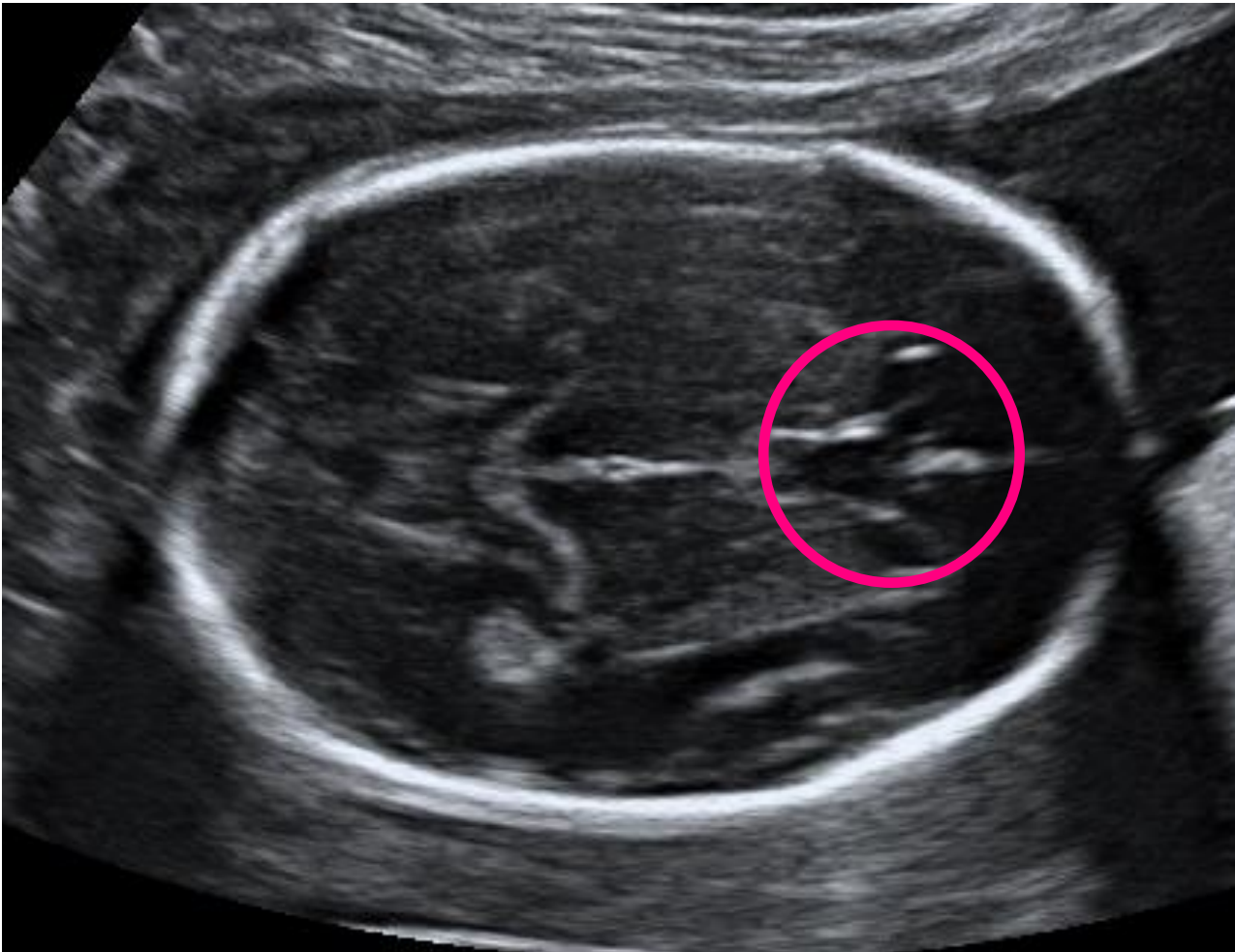
ISUOG :Guidelines Ultrasound Obstet Gynecol 2007

Criterion	Score	Anatomical/technical requirements
Primary criteria		
1. Strict axial plane	0–2	1a. Midline structures equidistant from proximal and distal calvarial margins 1b. Midline perpendicular to ultrasound beam
2. Adequate anatomical level	0–1	Anterior landmark: cavum septi pellucidi or fornix columns Posterior landmark: fluid-filled triangular V-shape of the ambient cistern
3. Location of the atrium	0–1	Measurement performed opposite the internal parieto-occipital sulcus
Secondary criteria		
4. Caliper placement	0–2	4a. Measurement perpendicular to inner and outer borders of the ventricle 4b. 'On to on' measurement (junction of ventricular lumen and ventricular wall)
5. Adequate image size	0–1	Axial transventricular plane occupying the whole screen with visualization of both proximal and distal calvarial margins

Maximum total score is 7.

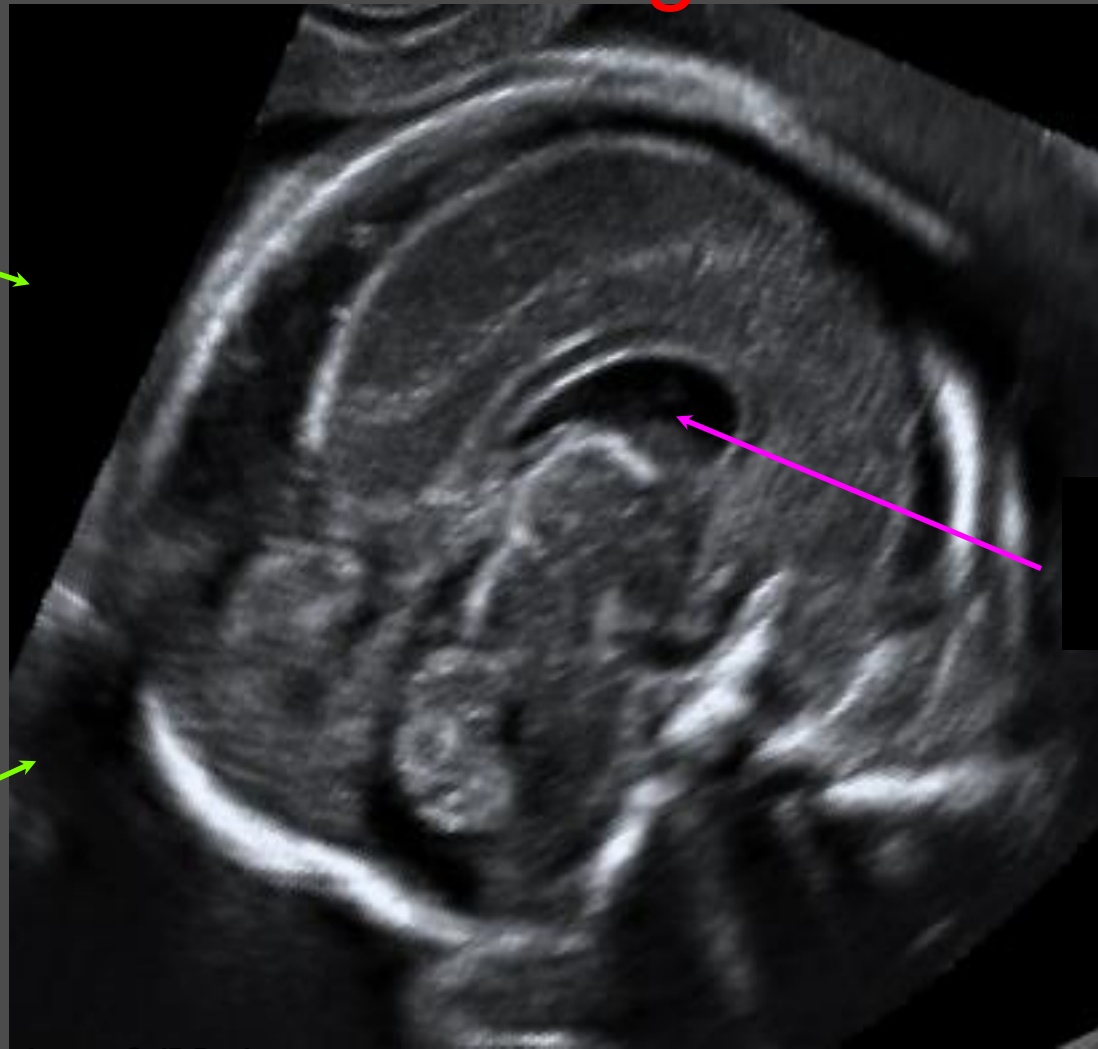
L.Guibaud : Opinion Fetal cerebral ventricular measurement and ventriculomegaly: time for procedure standardization *Ultrasound Obstet Gynecol* 2009; **34**: 127–130

Vách trong suốt



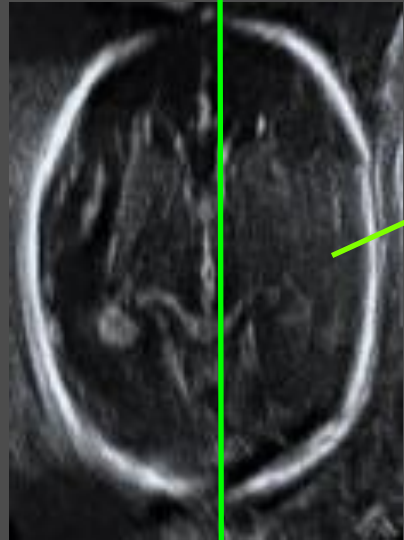
- Vách trong suốt:
 - Kích thước,
 - Hình dạng,
 - Thành.

Vách trong suối

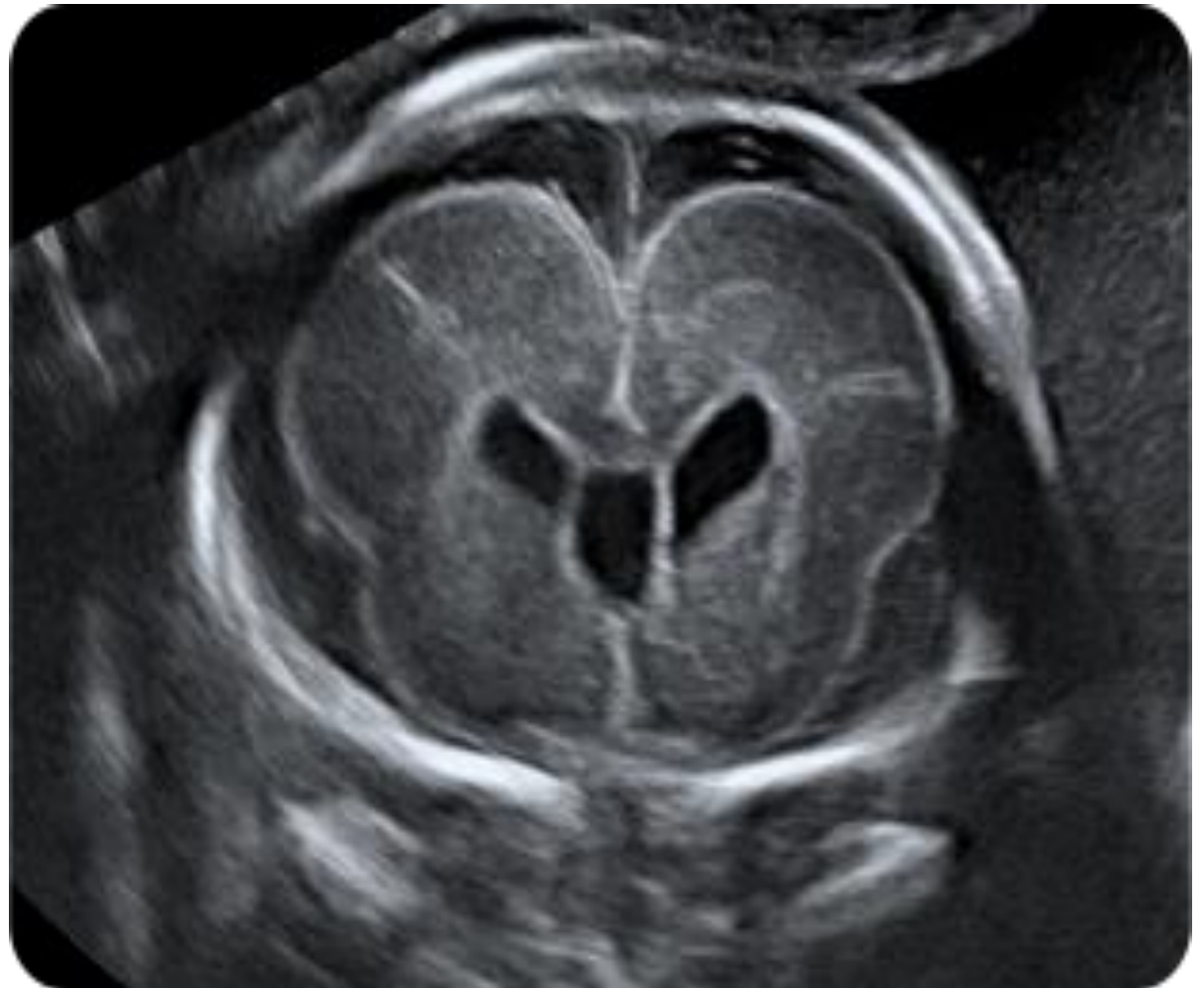
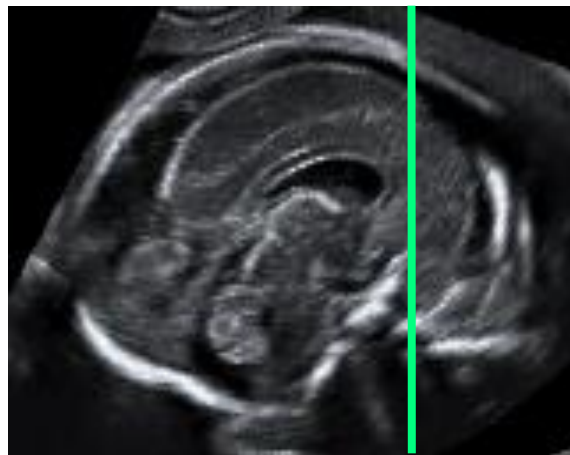
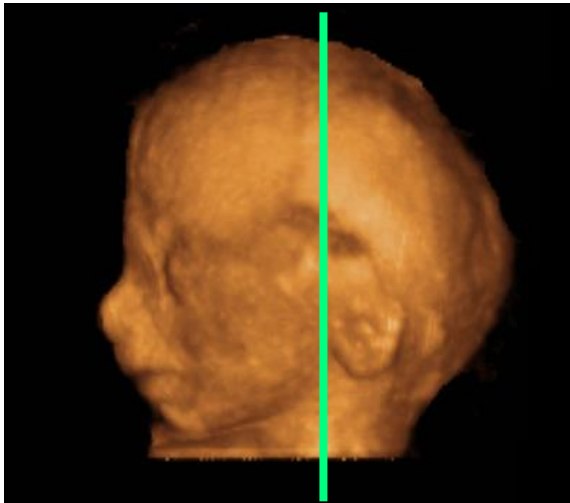


Vách trong suối

Images © JP Bault



Vách trong suốt



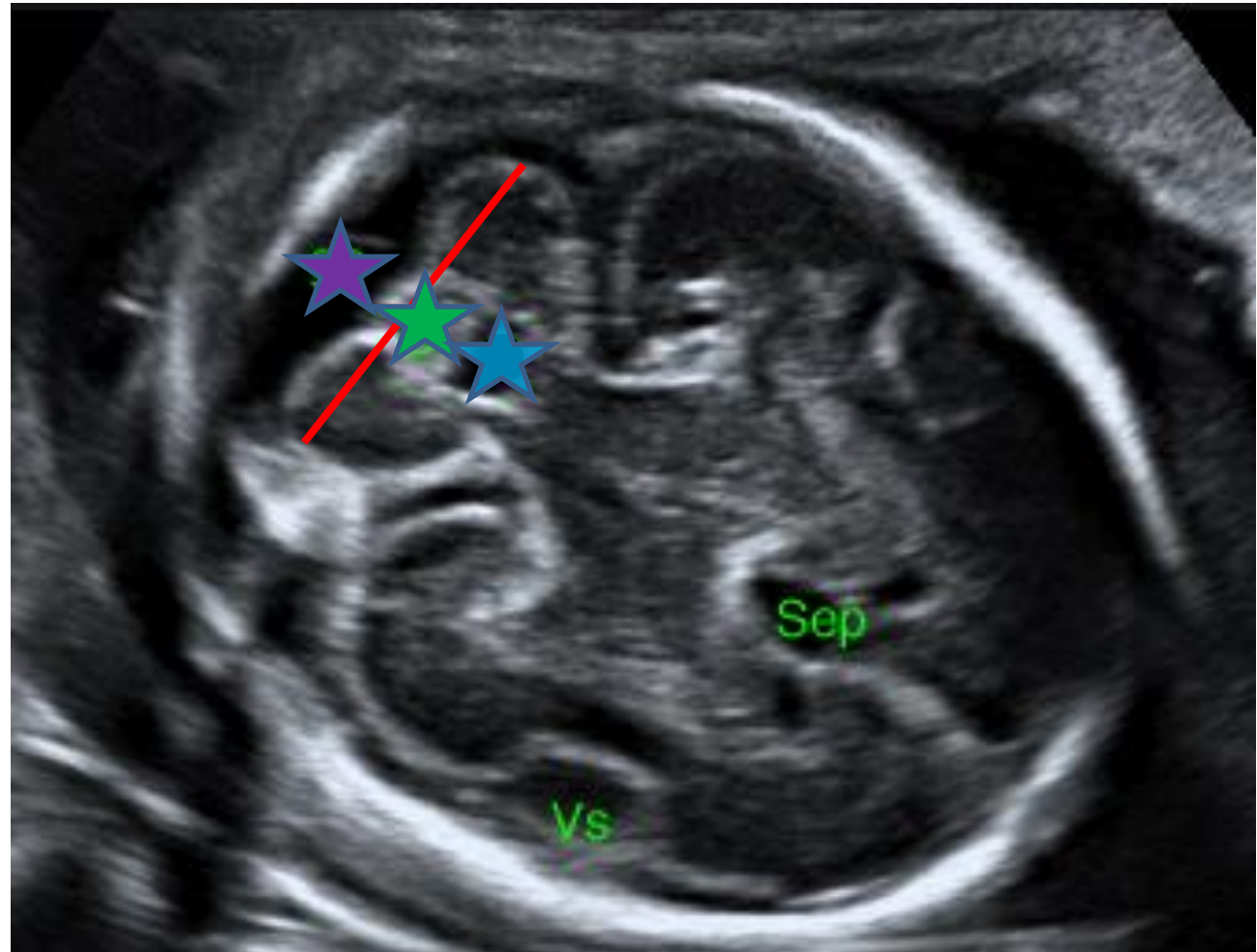
Images © JP Bault

Hố sau

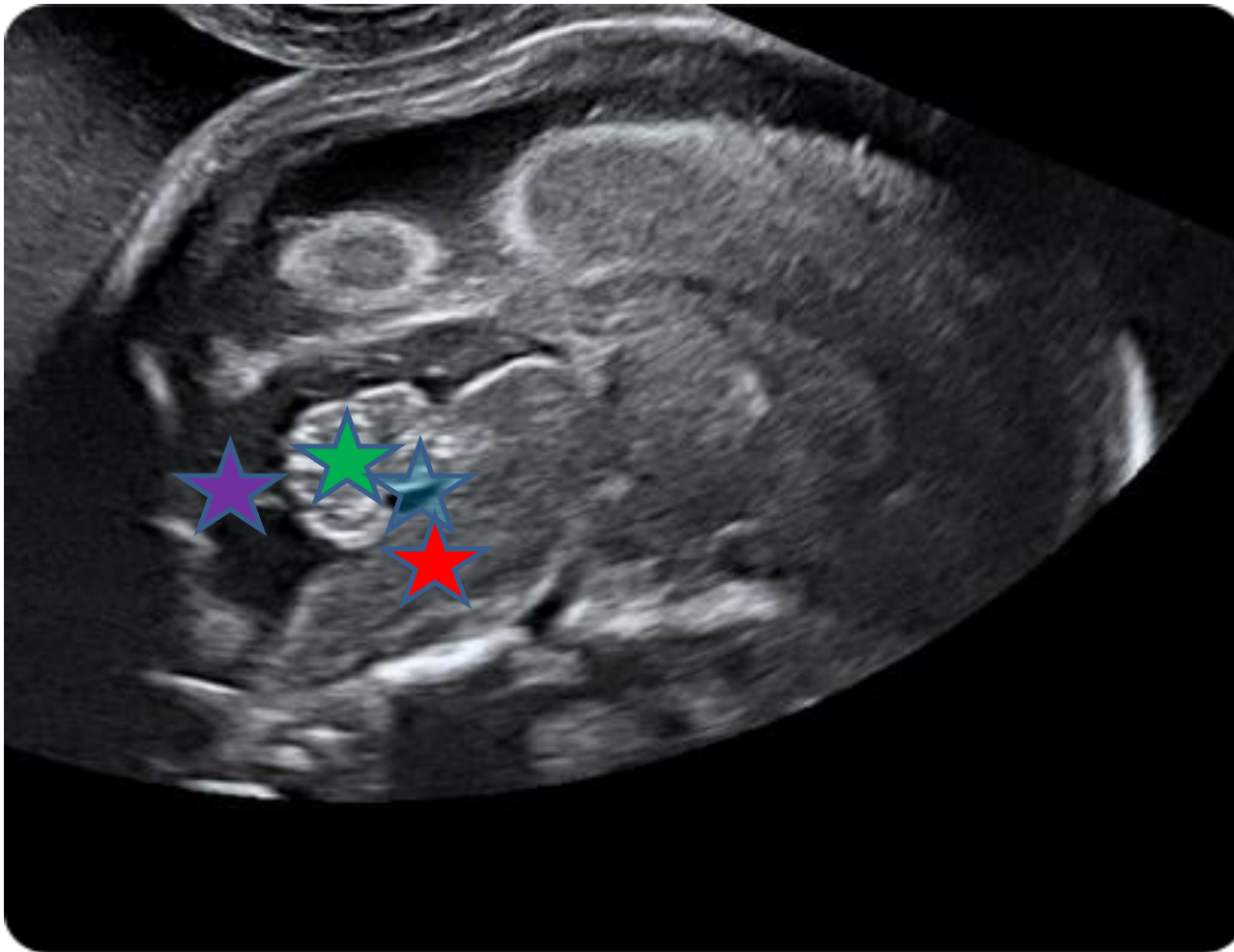


Mặt cắt qua
hố sau

- Ngang tiểu não
- Thùy nhộng
- Hố sau
- NT 4



Hồ sau



- Thùy nhộng
- Hồ sau
- NT 4
- Cuống não

Images © JP Bault

HC / BPD measurement



Ultrasound Obstet Gynecol 2006; 27: 34–40
Published online in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/uog.2665

Feasibility and reproducibility of an image-scoring method for quality control of fetal biometry in the second trimester

L. J. SALOMON*, J. P. BERNARD*, M. DUYPME†, B. DORIS†, N. MAS† and Y. VILLE*

Cephalic

Symmetrical plane

Plane showing the thalami

Plane showing the cavum septi pellucidi

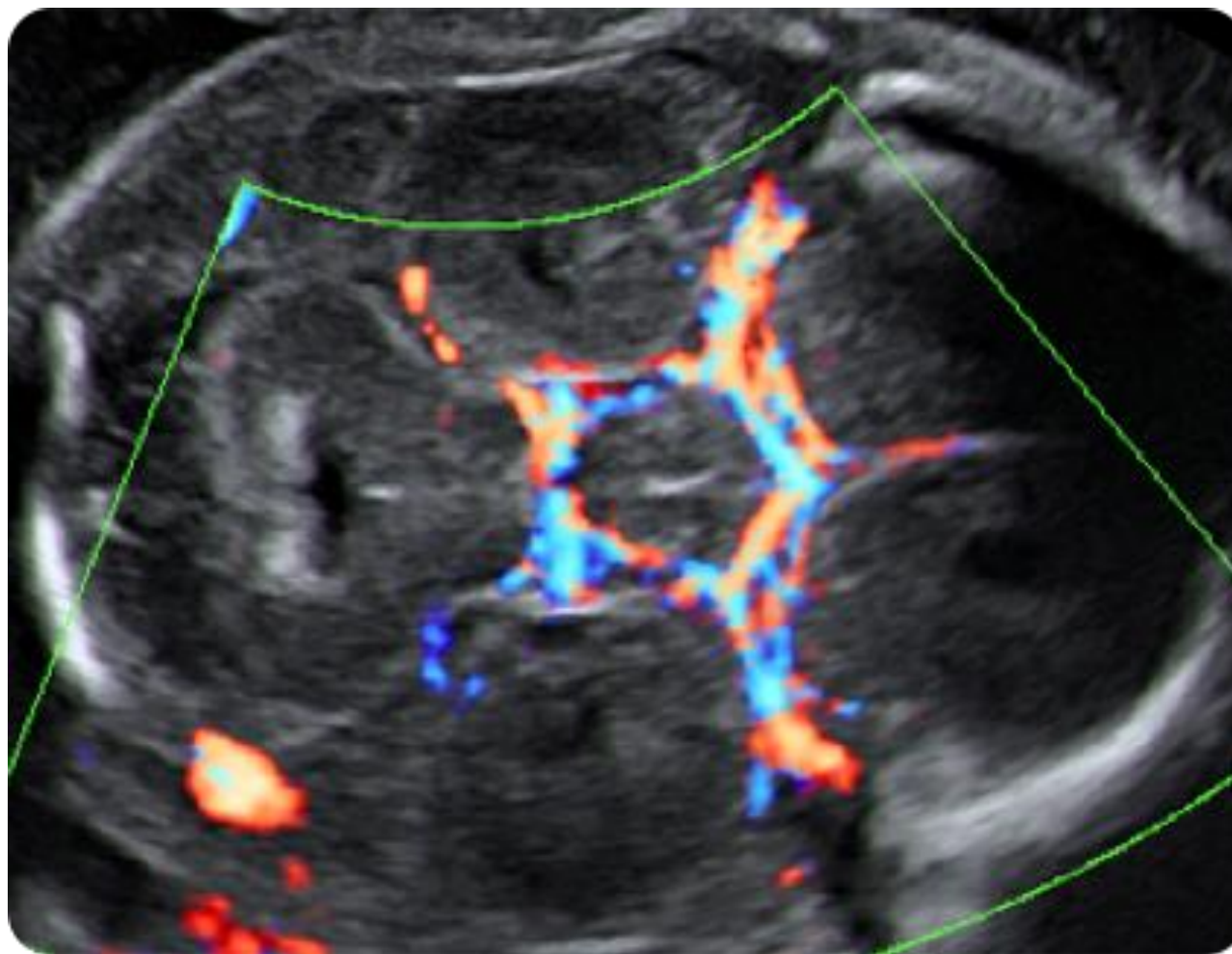
Cerebellum not visible

Head plane

occupying more than half of the total image size

Calipers and dotted ellipse placed correctly

Tuần hoàn não



Images © JP Bault

Đa giác Willis

Laurent J Salomon

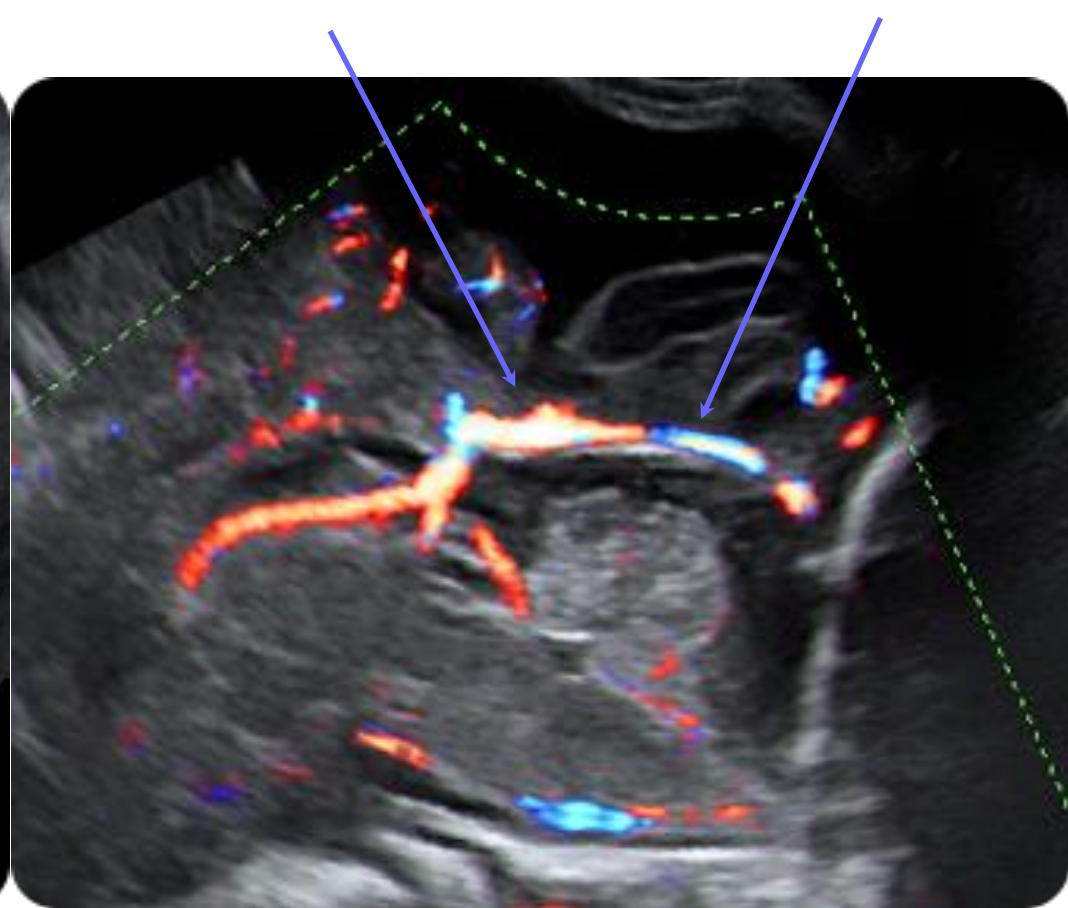
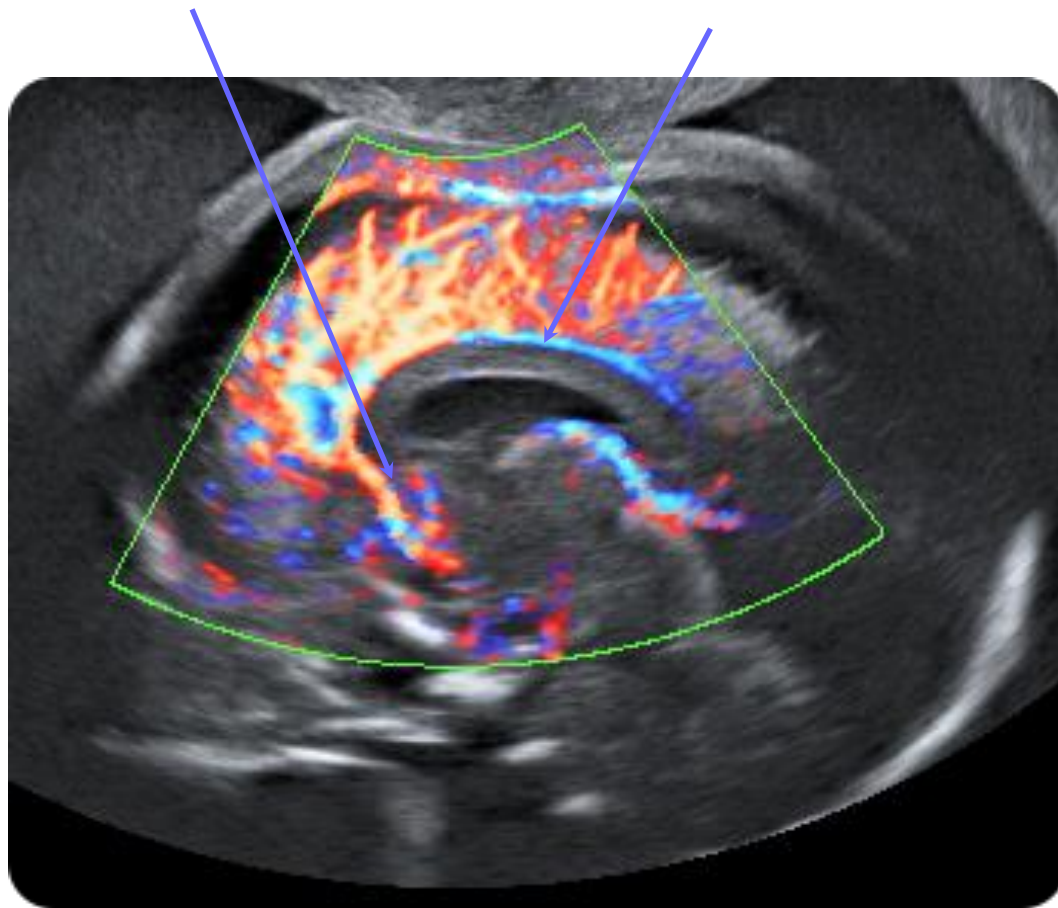
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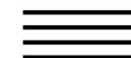
ĐM não trước

ĐM quanh thể chai

TM Gallien

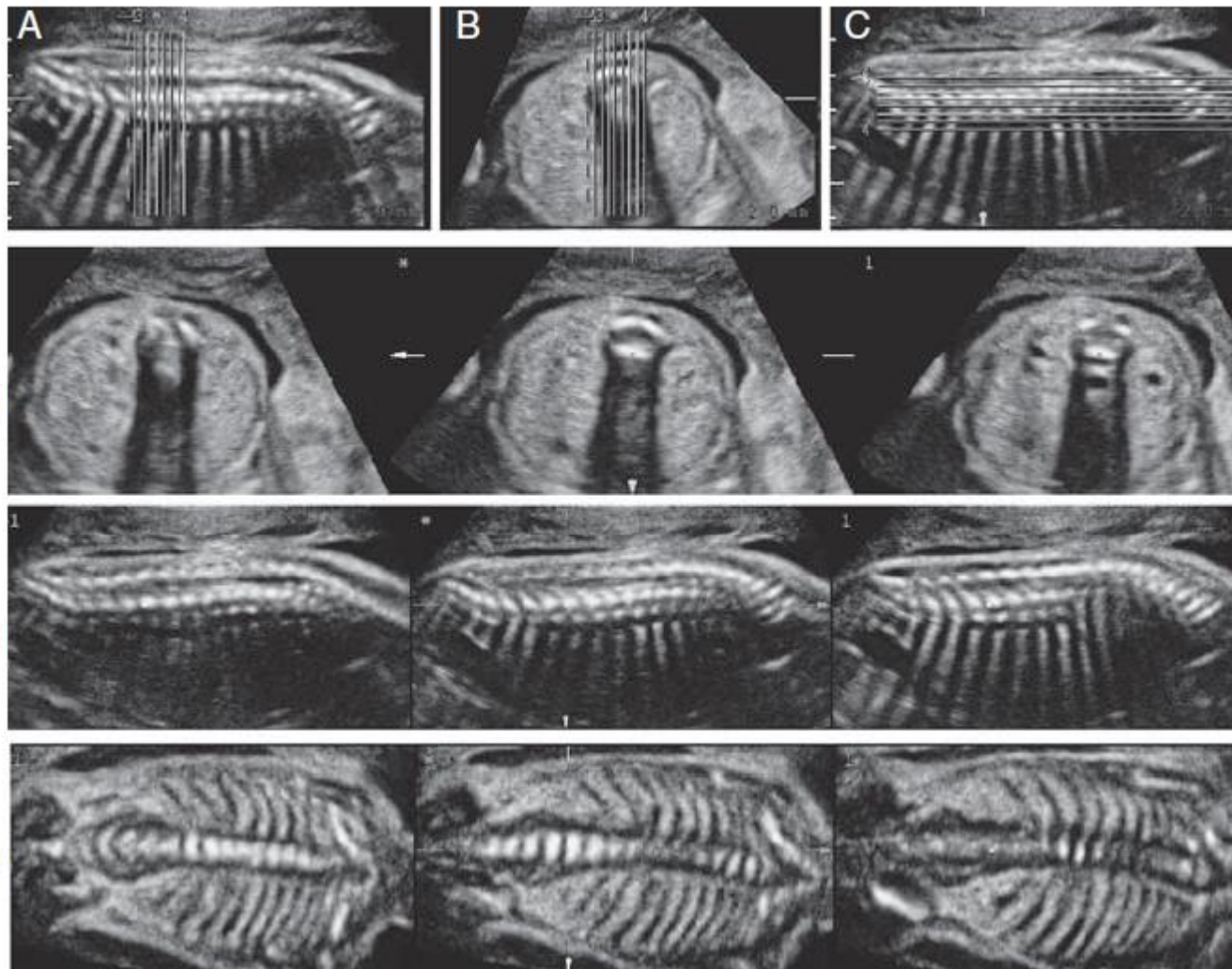
Xoang dọc





Fetal CNS Scanning—Less of a Headache Than You Think

ANA MONTEAGUDO, MD and
ILAN E. TIMOR-TRITSCH, MD



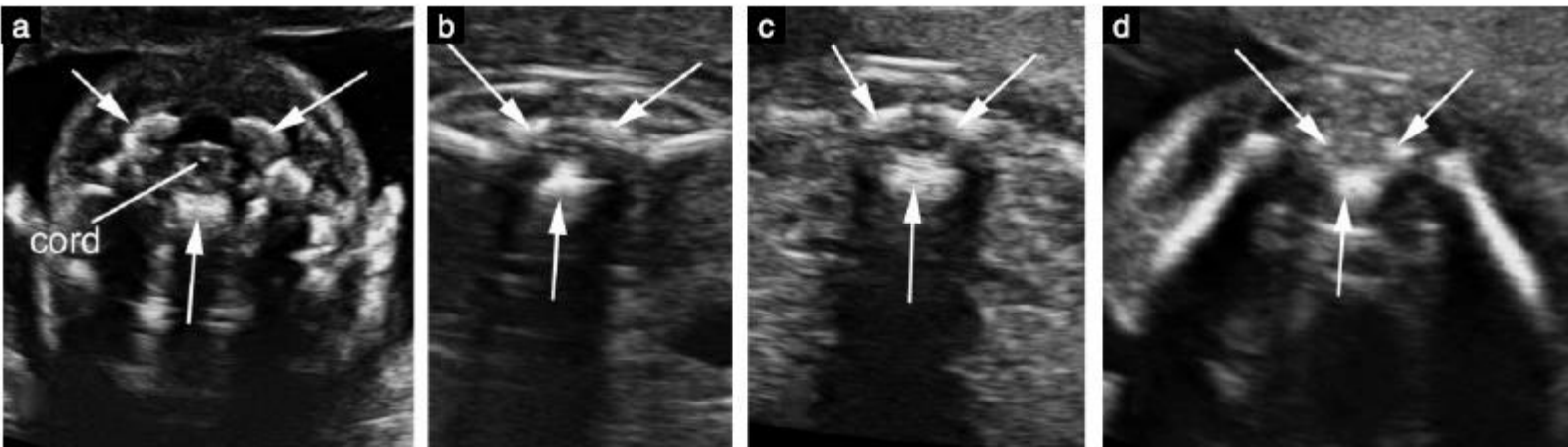
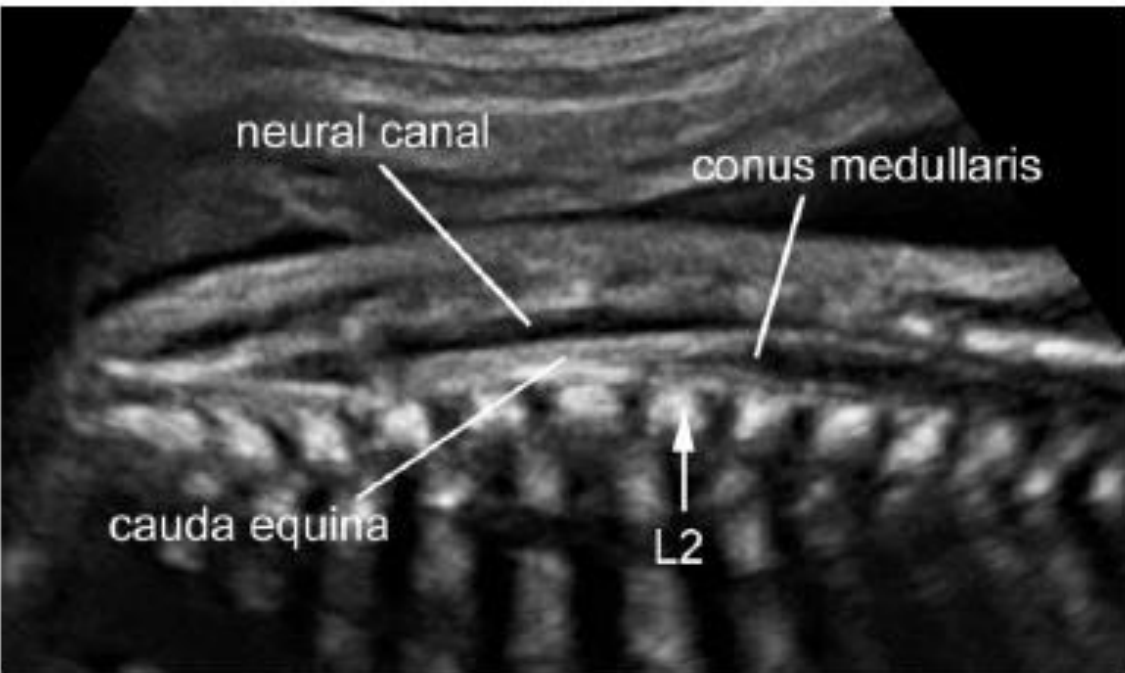
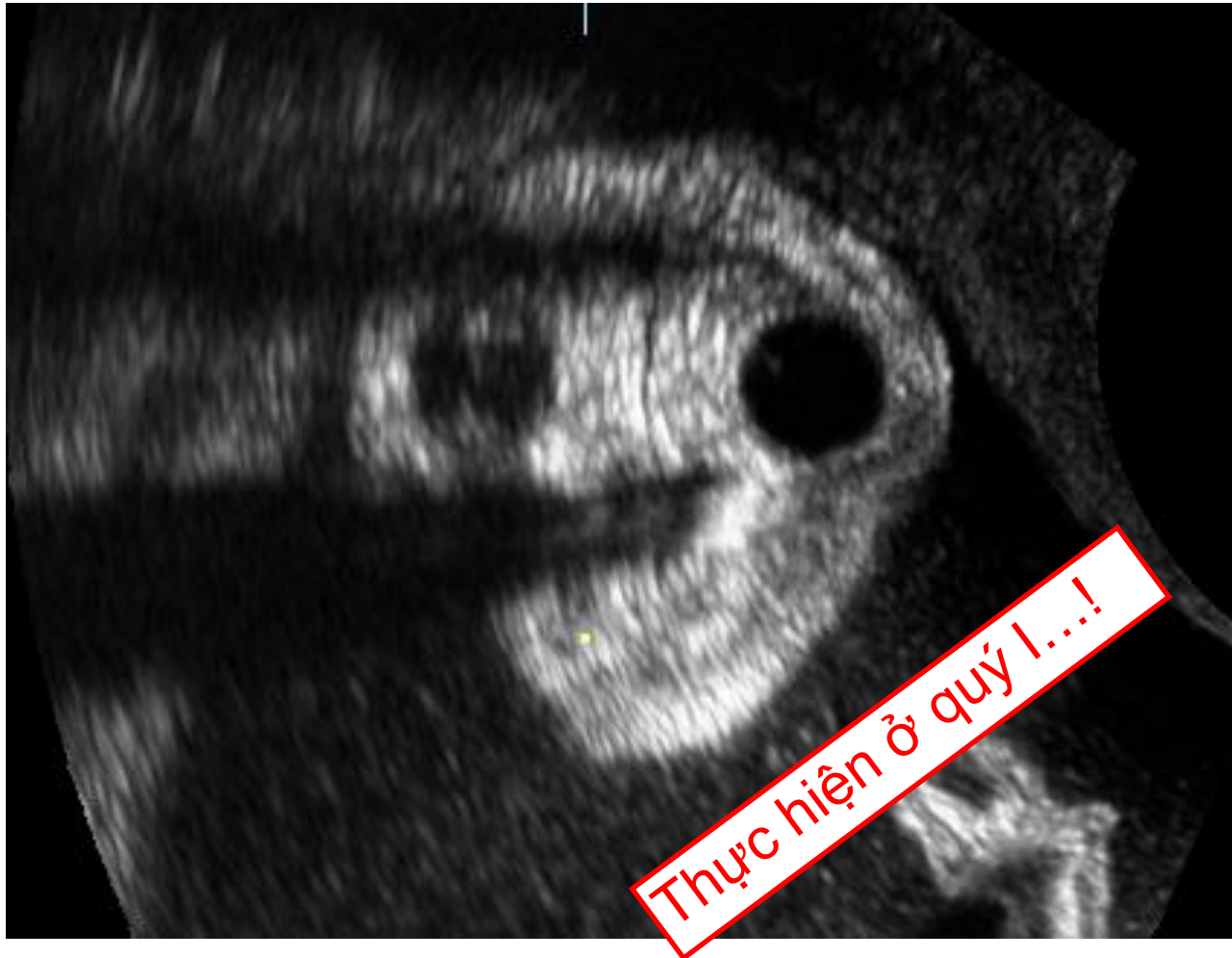


Figure 5 Axial views of the fetal spine at different levels. (a) Cervical; (b) thoracic; (c) lumbar; (d) sacral. The arrows point to the three ossification centers of the vertebrae. Note the intact skin overlying the spine. On images a–c the spinal cord is visible as a hypoechoic ovoid with central white dot.

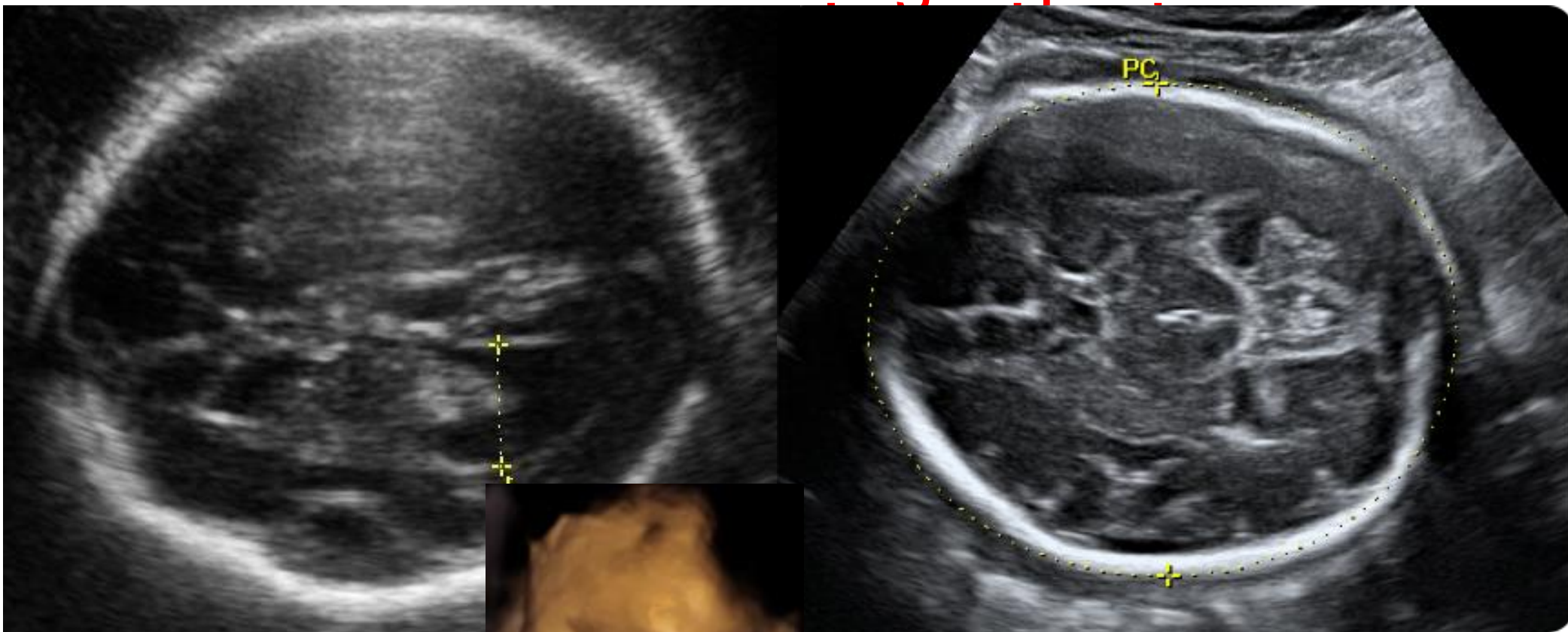


Hình dạng hộp sọ

Thai vô sọ



Hình dạng hộp sọ

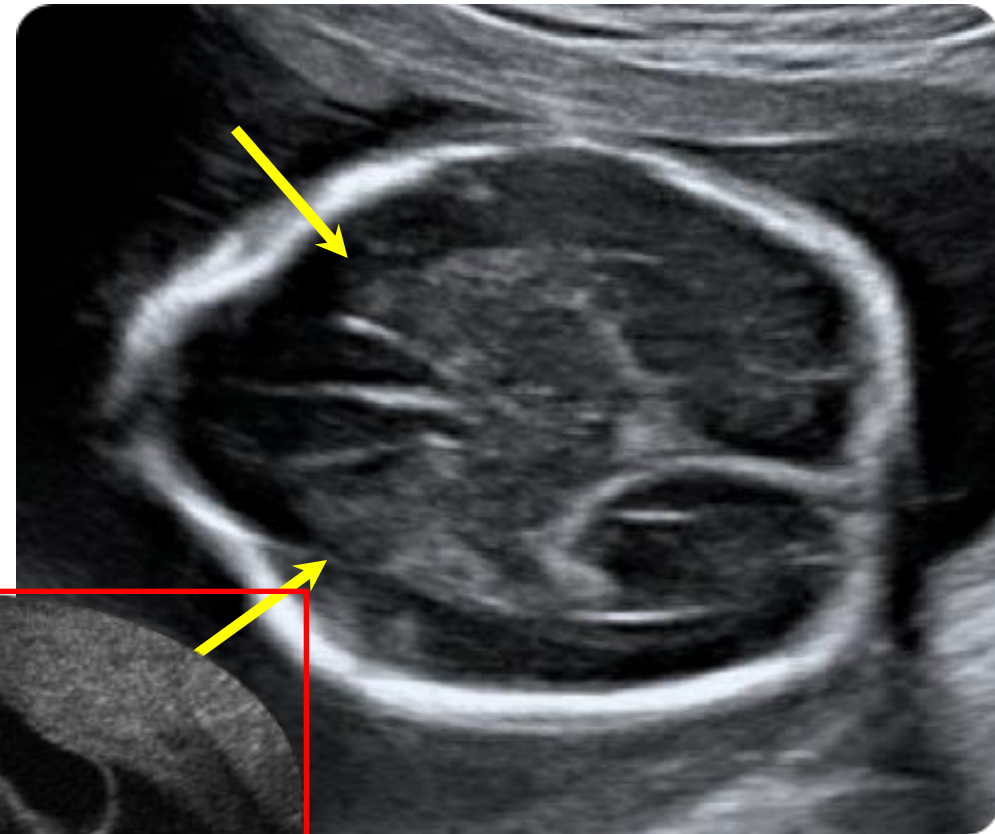
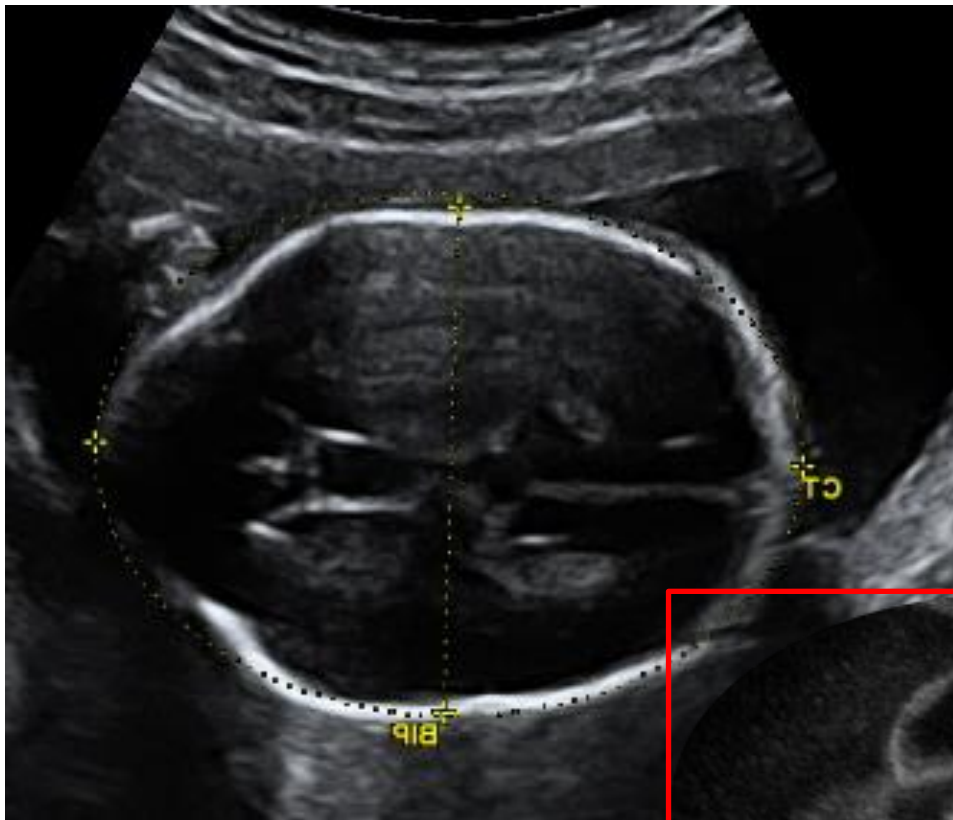


* Sọ ngắn: Brachycephaly
T 21

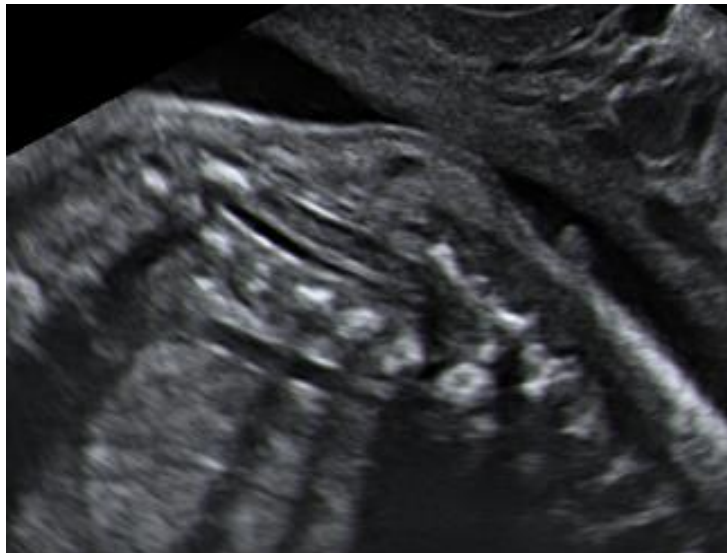
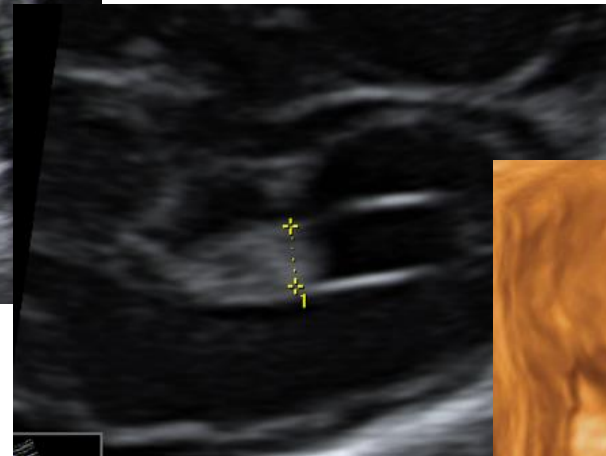
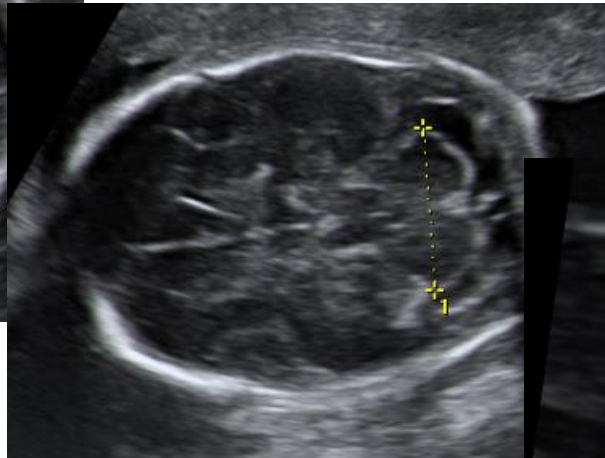
*Đầu trái dẹt T 18 ...

Hình dạng hộp sọ

Trái chanh



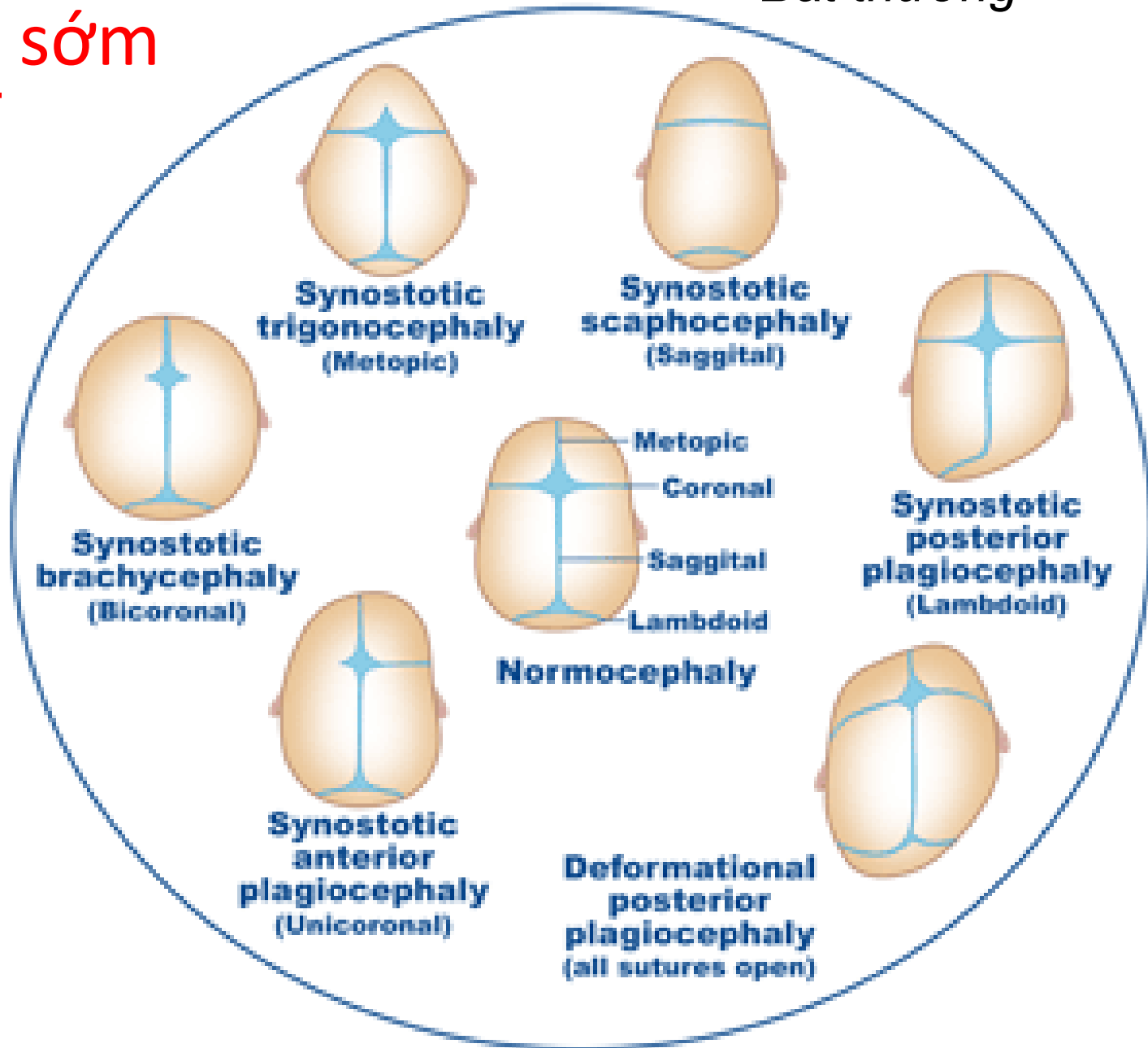
Hình dạng hộp sọ bình thường trong các bất thường kín / Thoát vị não màng não / bướu mỡ



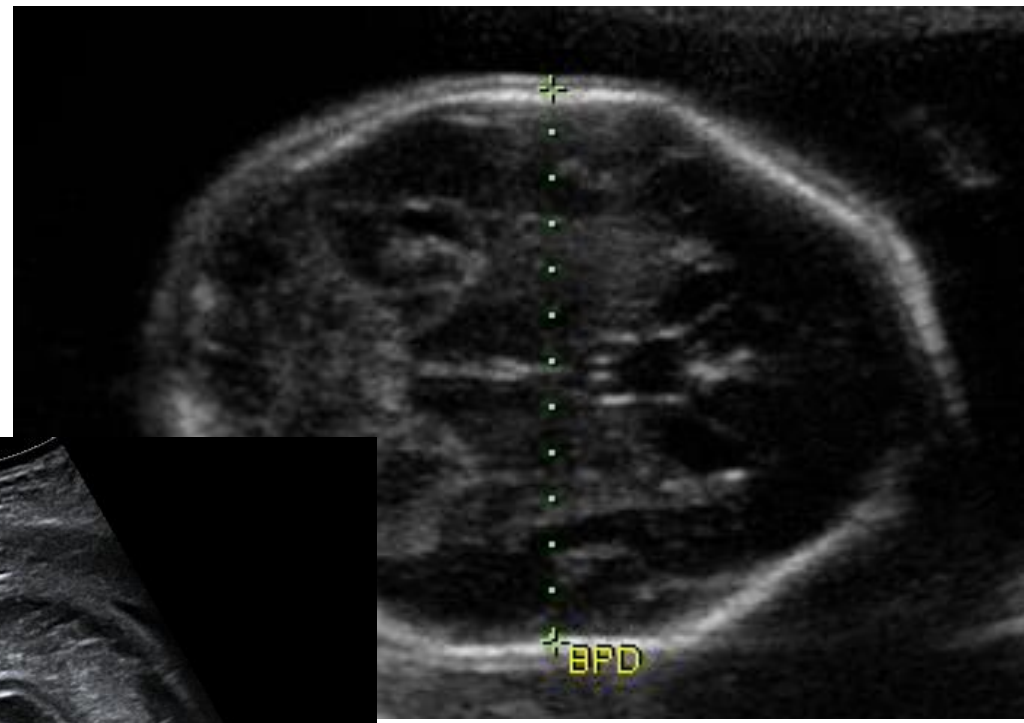
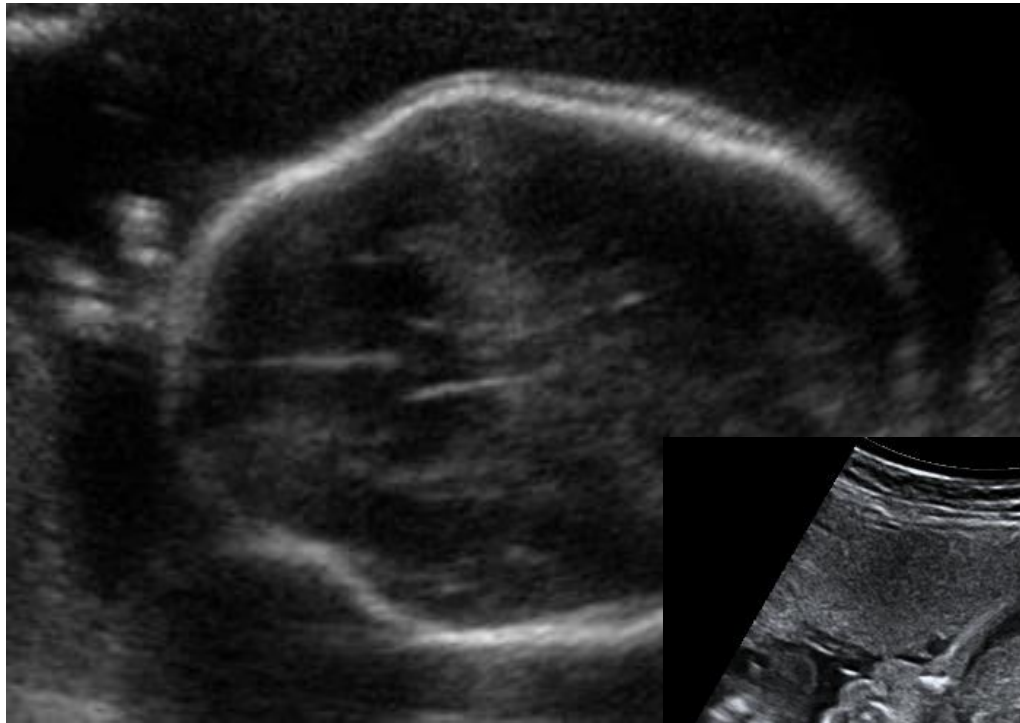
Ghi et al Ultrasound Obstet Gynec 2006;28:899-903

Hình dạng hộp sọ: Đóng thóp sớm

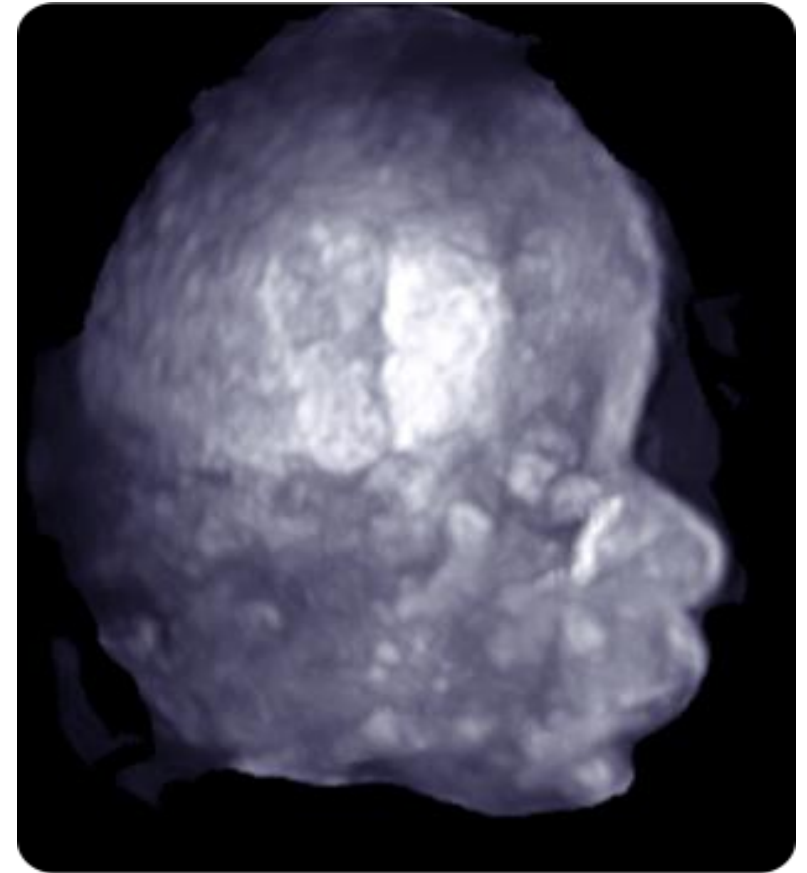
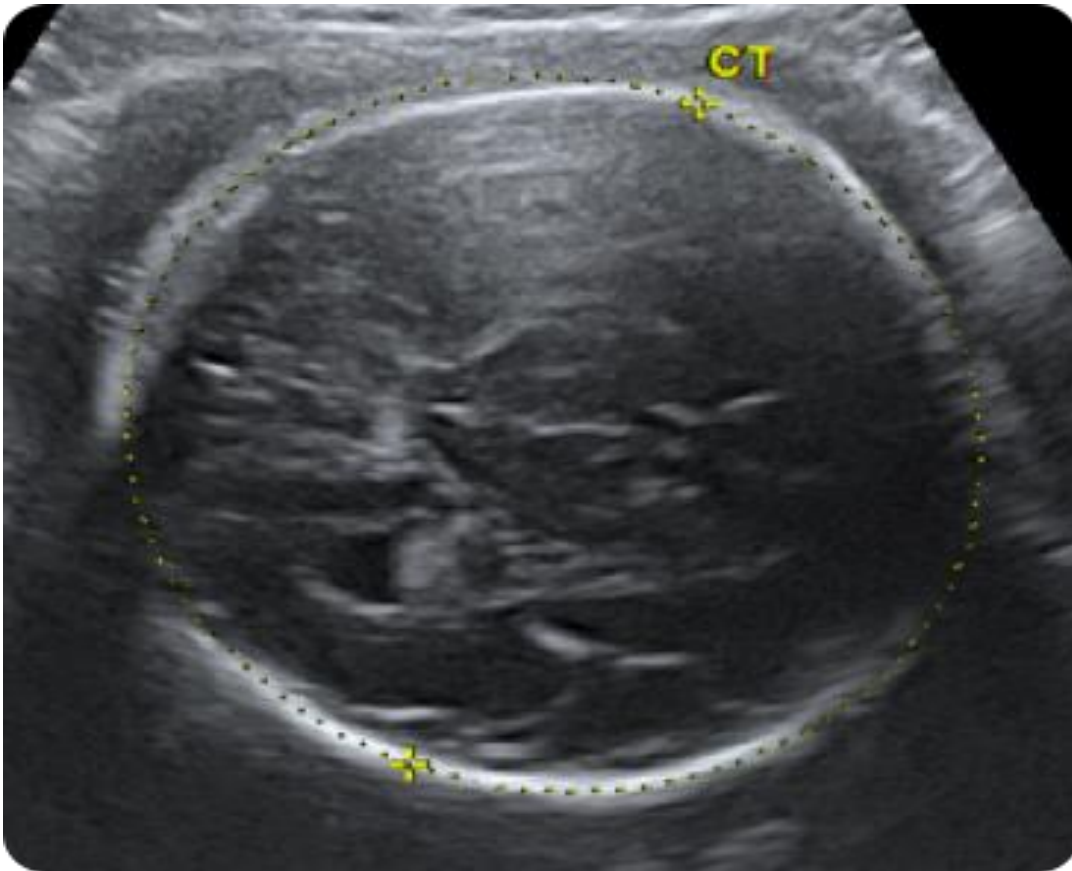
Bất thường



Hình dạng hộp sọ: Đóng thóp sớm



Hình dạng hộp sọ: Đóng thóp sớm



Images © JP Bault

Hình dạng hộp sọ: Đóng thóp sớm



Images © JP Bault

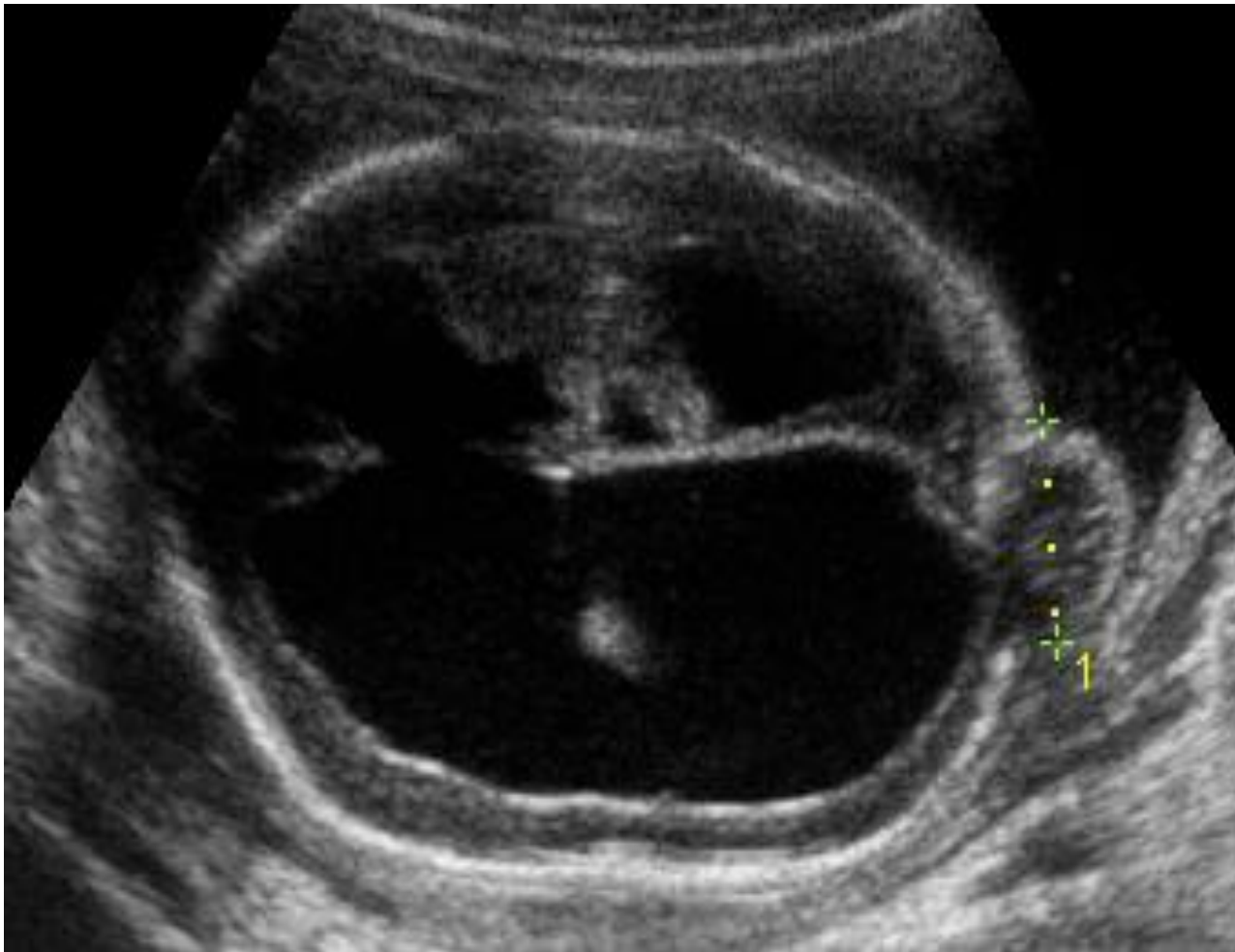
Hẹp sọ hình cánh chuồn

Hình dạng hộp sọ: Đóng thóp sớm



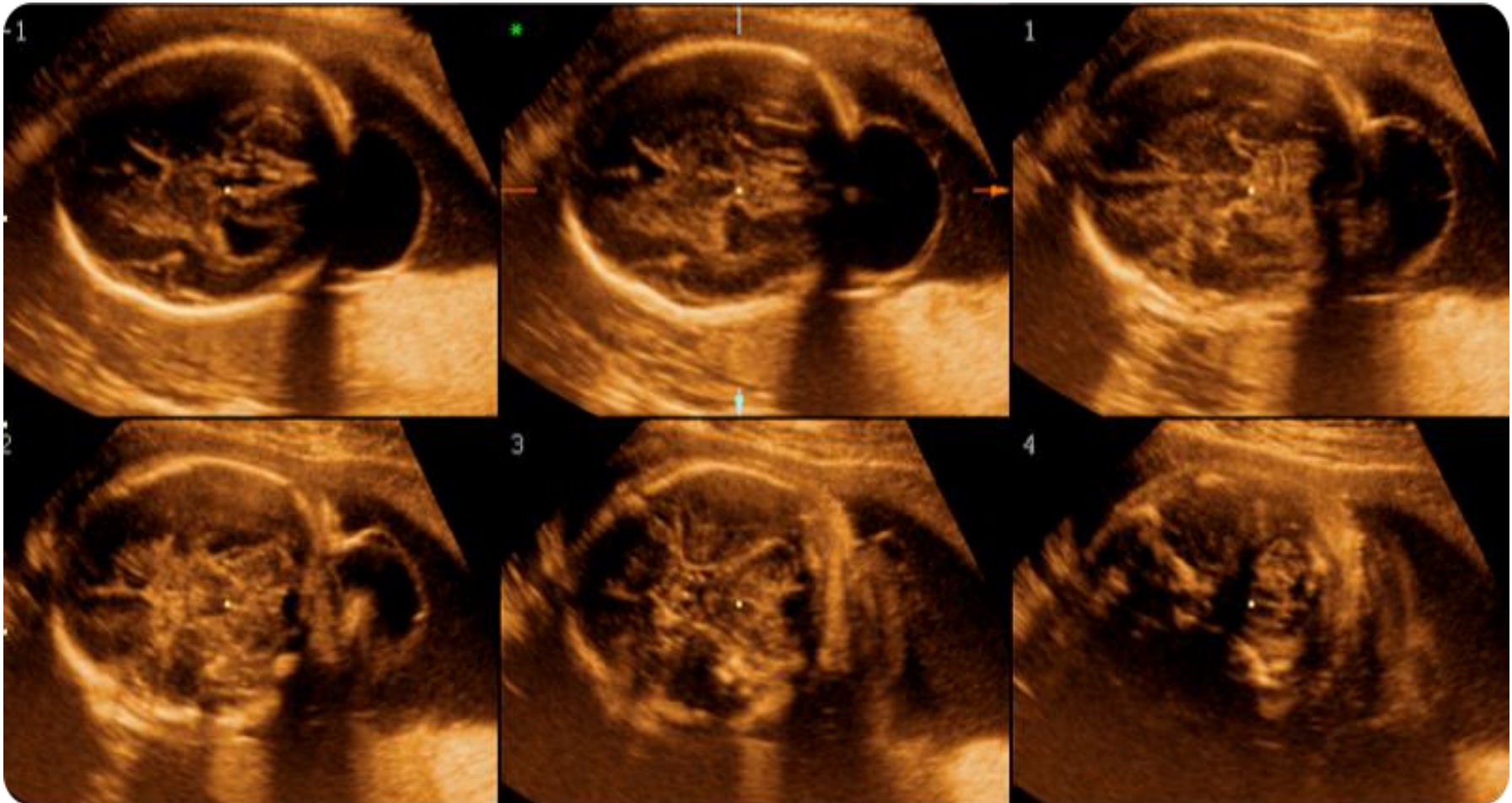
3D CT SCAN

Hình dạng hộp sọ: khác



Thoát vị não – màng não

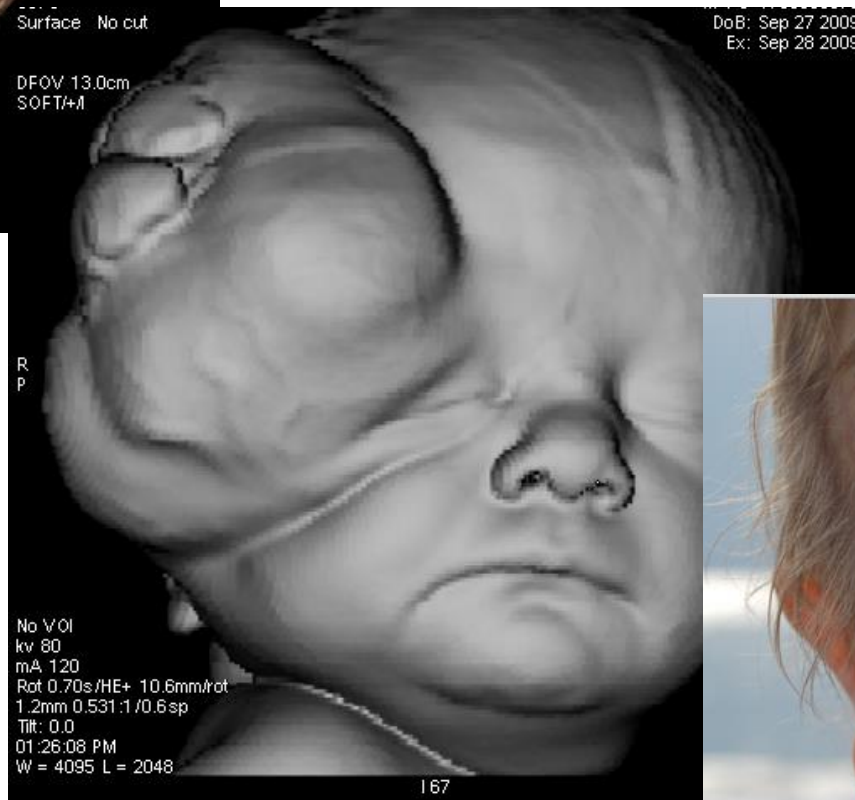
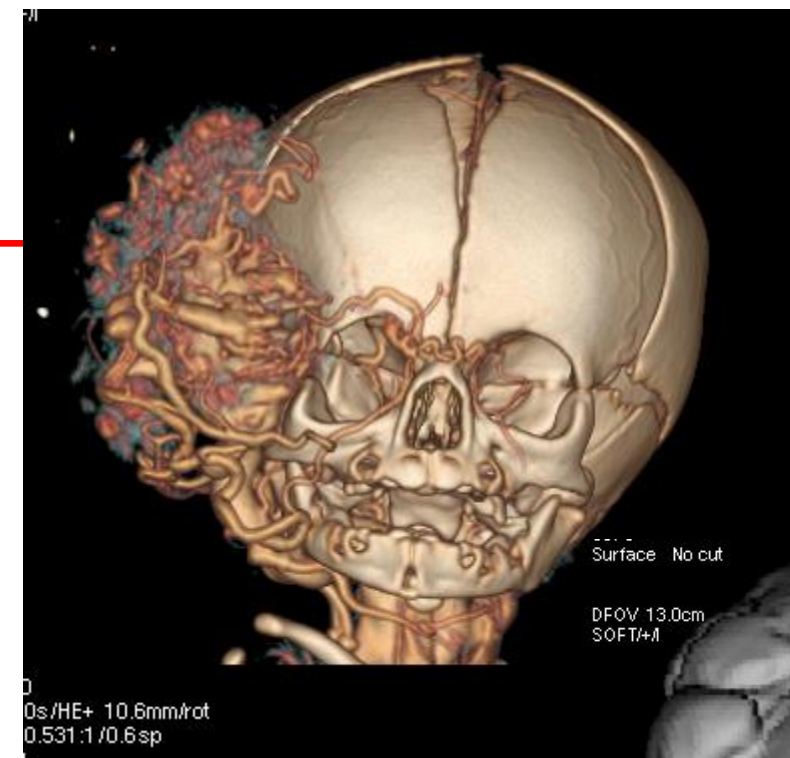
Hình dạng hộp sọ: khác





Hình dạng hộp sọ:
Bướu máu (RICH)

Hình dạng hộp sọ: Bướu máu (RICH)

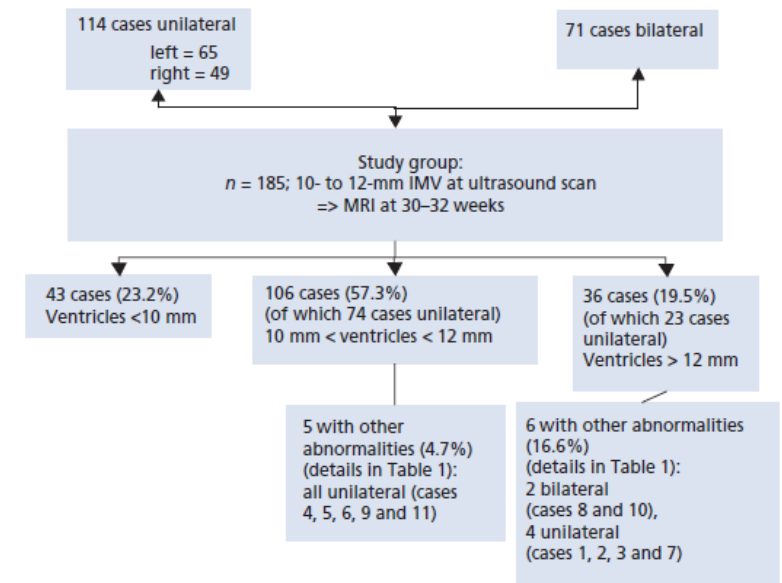


- Dãn não thất:

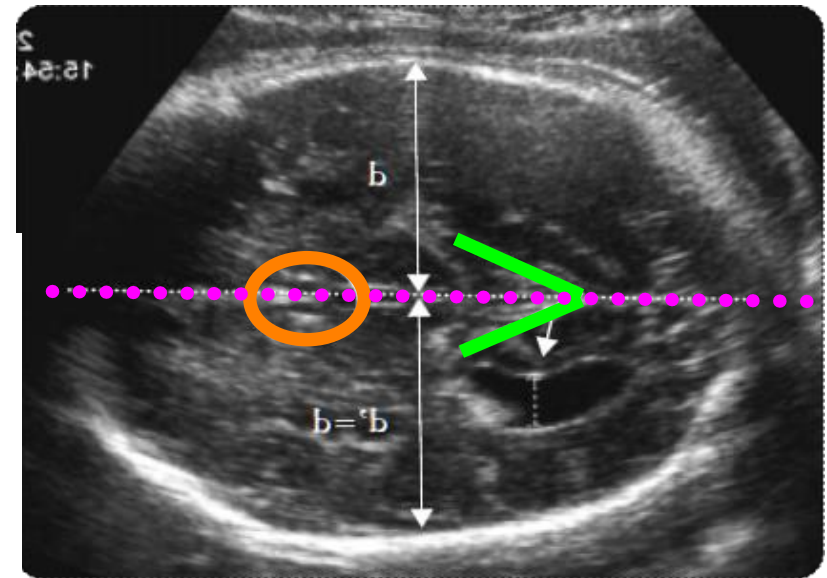
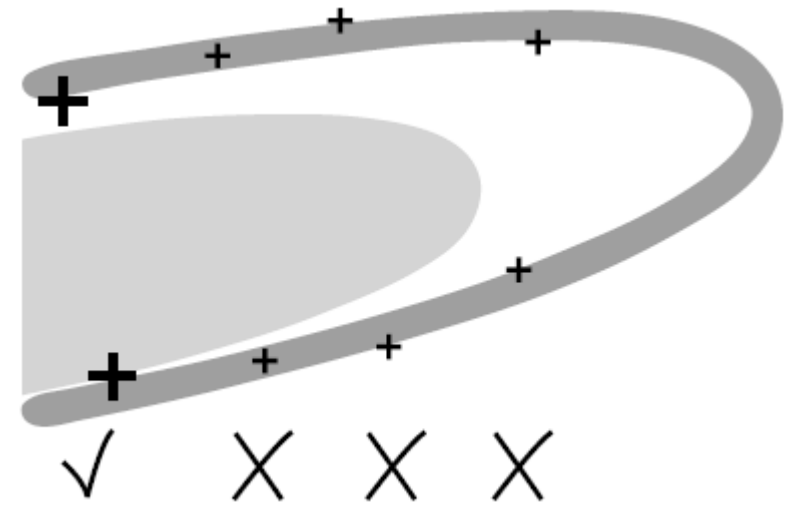
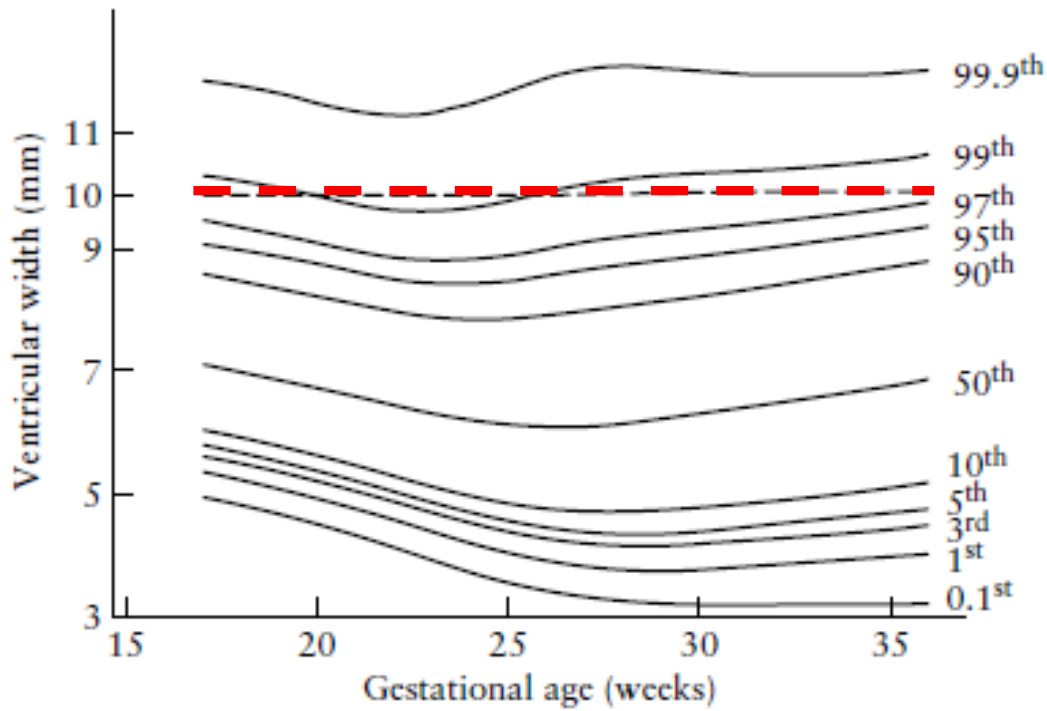
- Tuổi thai lúc chẩn đoán
- Kích thước ++ (10-12 / 12-15 / 15)
- Hình dạng
- Hai bên / Một bên
- Giới tính / Kích thước
- Tiến triển
- Bất thường thần kinh trung ương kèm theo / Dị tật không thuộc TKTW
- Nhiễm trùng / Lệch bội/ MRI ?

Third-trimester fetal MRI in isolated 10- to 12-mm ventriculomegaly: is it worth it?

LJ Salomon,^a J Ouahba,^b A-L Delezoide,^c E Vuillard,^d J-F Oury,^b G Sebag,^a C Garel^a



BJOG 2006; 113:942-947.



Ultrasound Obstet Gynecol 2007; 30: 61–66
 Published online 15 May 2007 in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/uog.4026

Reference ranges for fetal ventricular width: a non-normal approach

L. J. SALOMON, J. P. BERNARD and Y. VILLE
 Service de Gynécologie-Obstétrique, Centre Hospitalier Intercommunal de Poissy-St Germain, Poissy, France

Cerebral ventricle width measurements vary in relation to gestational age, fetal gender and cephalometry

Salomon et al. *Ultrasound Obstet Gynecol* 2011; 37: 369–372.

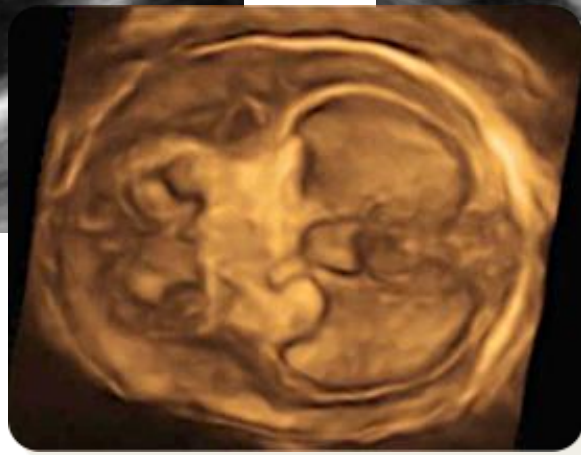
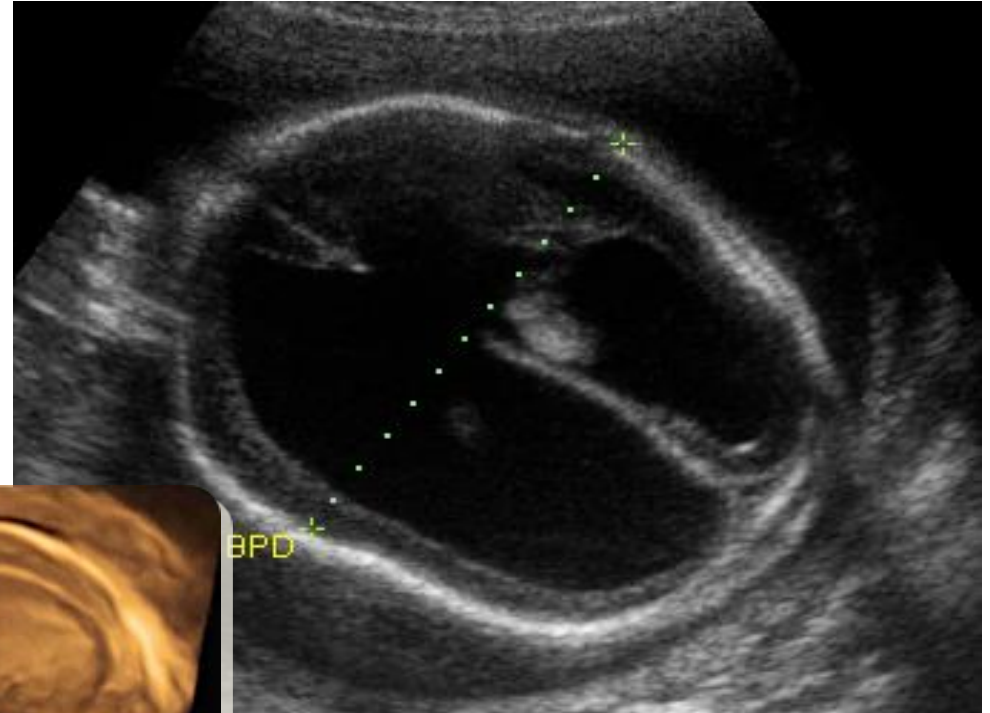
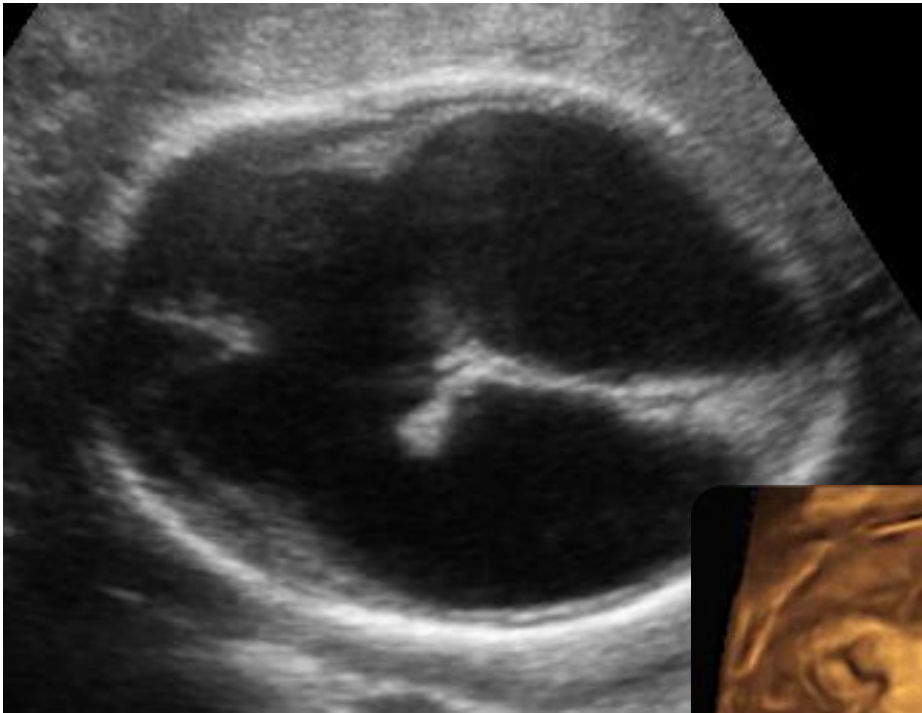
MR Imaging Appearance of Fetal Cerebral Ventricular Morphology¹

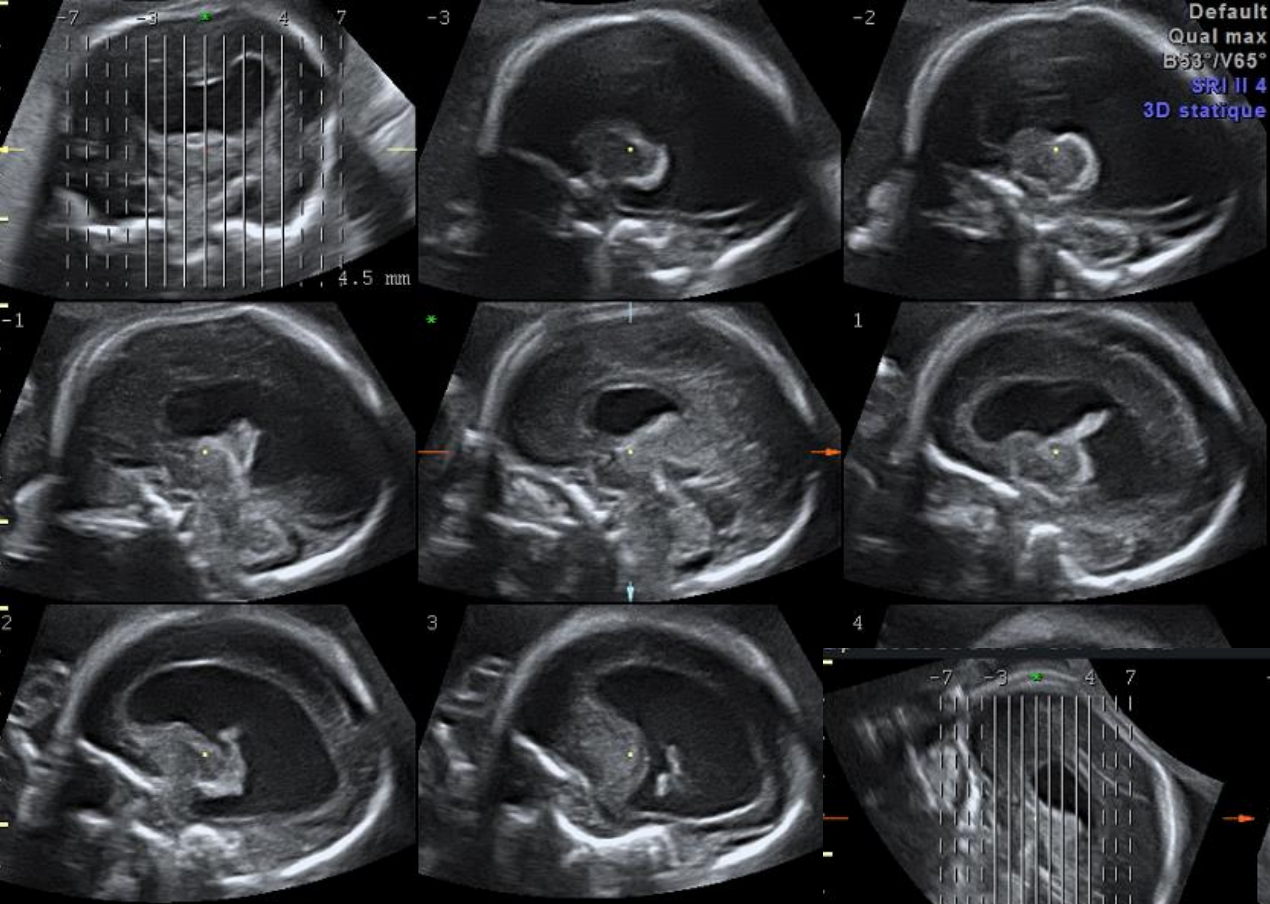
Radiology 2002; 223:652-660

Final Major Diagnosis (n = 204)	Normal Configuration	Primitive Fetal Ventricular Configuration	Colpocephaly with Normal Orientation of Frontal Horns	Abnormal Orientation of Frontal Horns with Colpocephaly	Abnormal Orientation of Frontal Horns without Colpocephaly	Angular Appearance	Fused Frontal Horns	Global Dilatation	Distorted Appearance
Normal (n = 110)	102 (26.0 ± 6.4)	8 (23.3 ± 4.6)	0	0	0	0	0	0	0
Isolated mild ventriculomegaly (n = 16)	2 (26, 32)	10 (25.1 ± 3.1)	0	0	0	0	0	4 (20.4 ± 1.5)	0
Moderate to severe ventriculomegaly (n = 8)	0	0	0	0	0	0	0	8 (20.6 ± 3.4)	0
Complete agenesis of the corpus callosum (n = 9)	0	0	0	3 (31.9 ± 5.3)	3 (29.3 ± 9.1)	0	0	3 (24.5 ± 4.0)	0
Partial agenesis of the corpus callosum (n = 5)	1 (22)	0	4 (26.7 ± 10.0)	0	0	0	0	0	0
Spinal NTD (n = 13)	1 (30)	0	0	0	0	9 (21.2 ± 3.6)	0	3 (28.5 ± 4.3)	0
Encephalocele (n = 7)	0	0	0	0	0	2 (16, 20)	0	1 (23)	4 (26.4 ± 6.9)
Agenesis of the septi pellucidi (n = 4)	0	0	0	0	0	0	2 (21, 34)	1 (23, 34)	0
Miscellaneous (n = 32)	13 (26.2 ± 6.4)	3 (20.0 ± 3.5)	0	1 (20)	0	0	0	3 (24.0 ± 10.4)	12 (26.4 ± 6.9)
Total	119	21	4	4	3	11	2	24	16

Note.—Numbers in parentheses are gestational ages in weeks. Age is presented as mean gestational age ± SD when there were three or more fetuses per category.

Dãn não thất: “dễ”

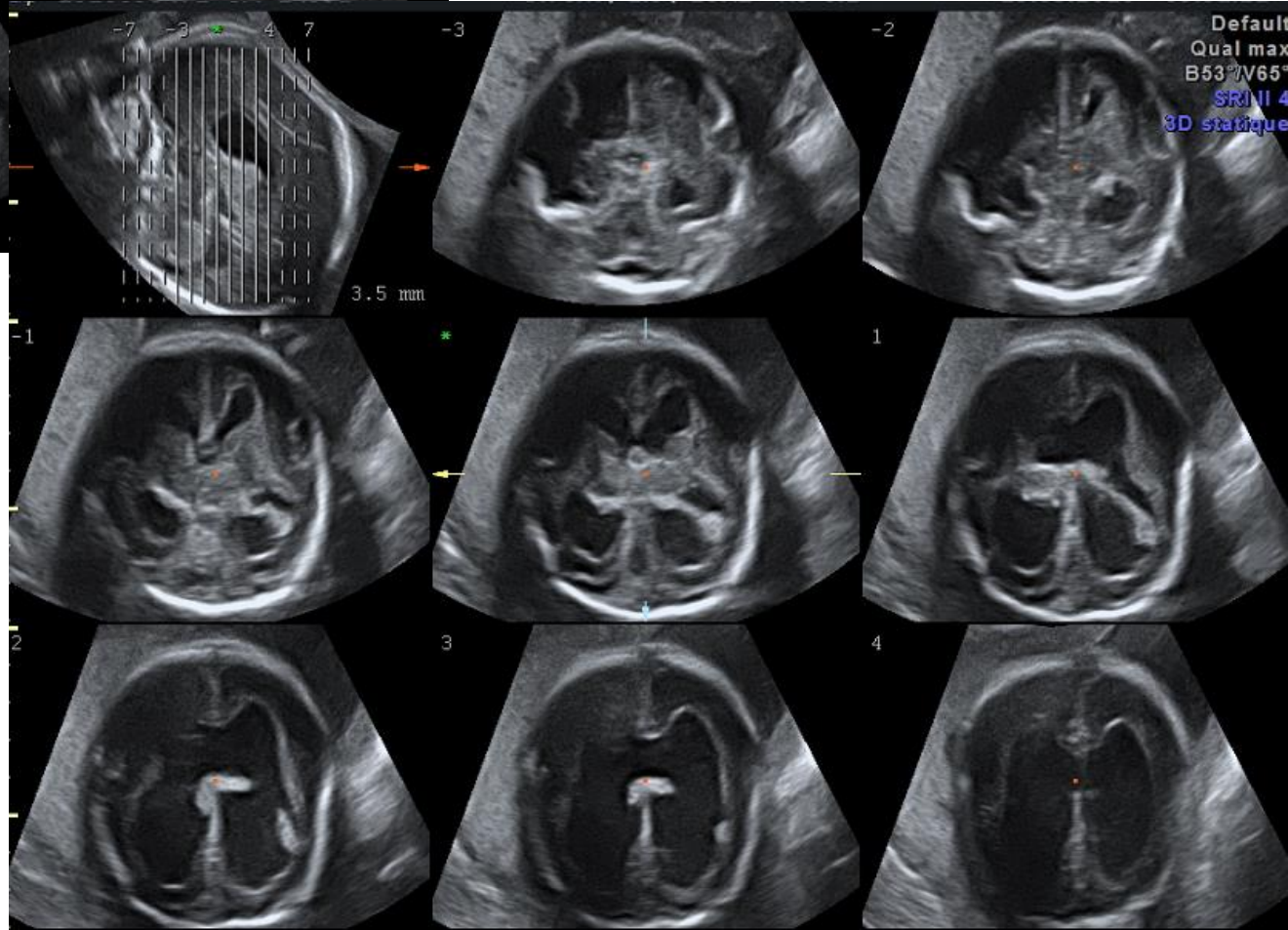




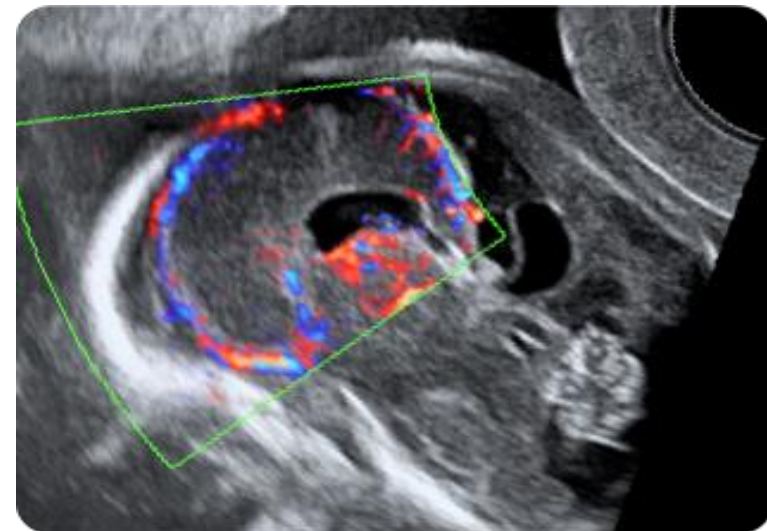
Bất thường



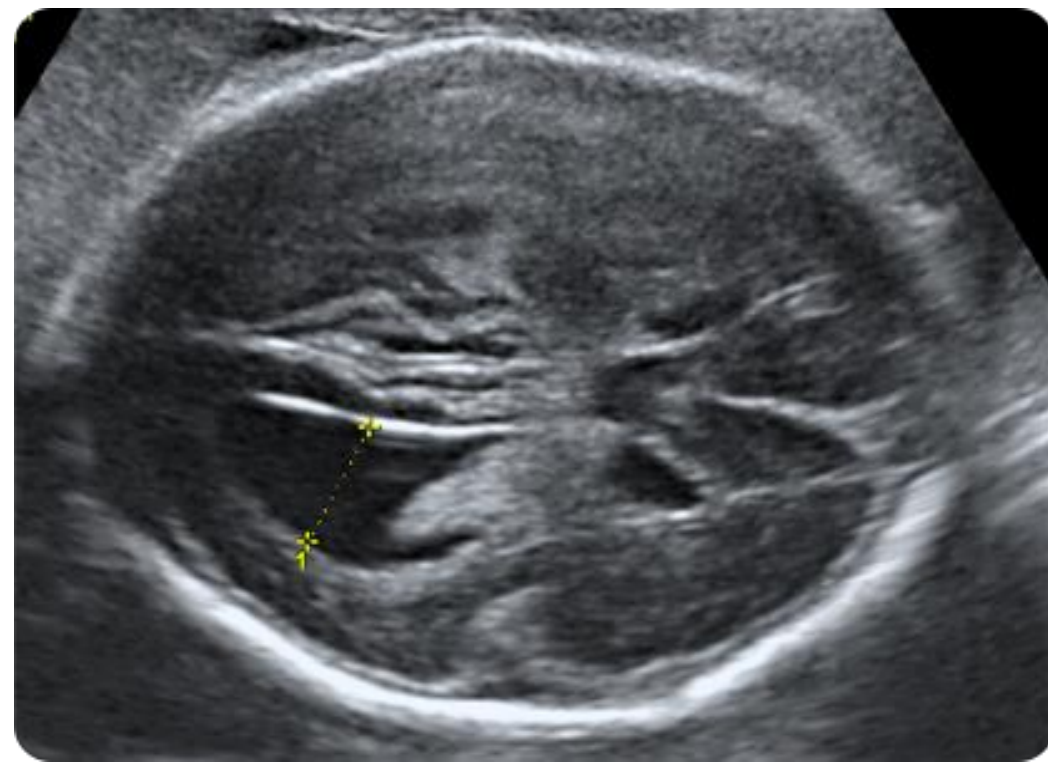
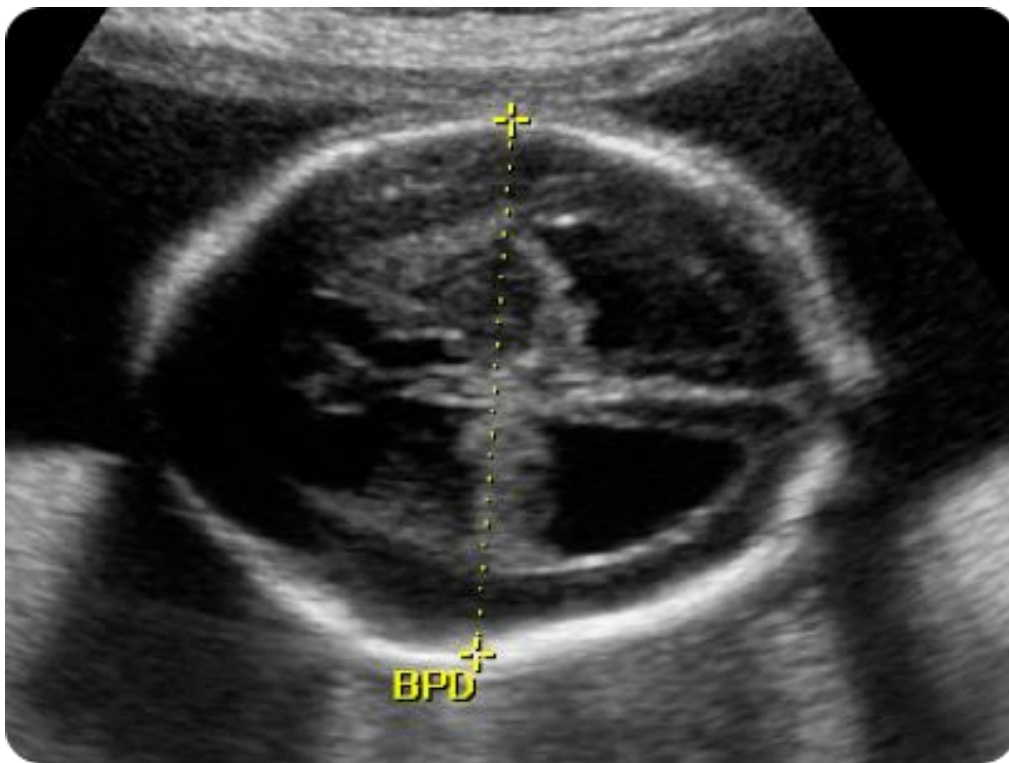
Dẫn não thất: “dễ”



Dẫn não thất: “dễ”

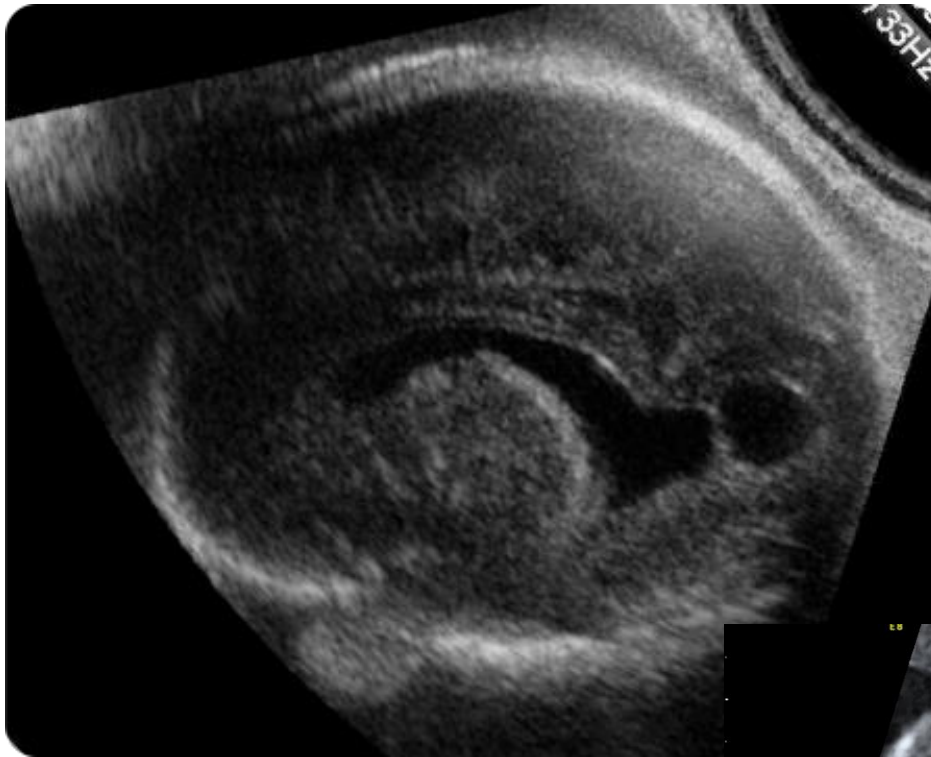


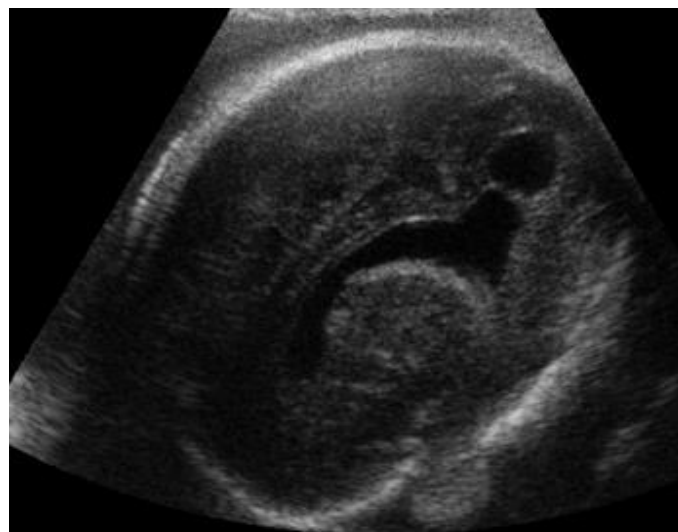
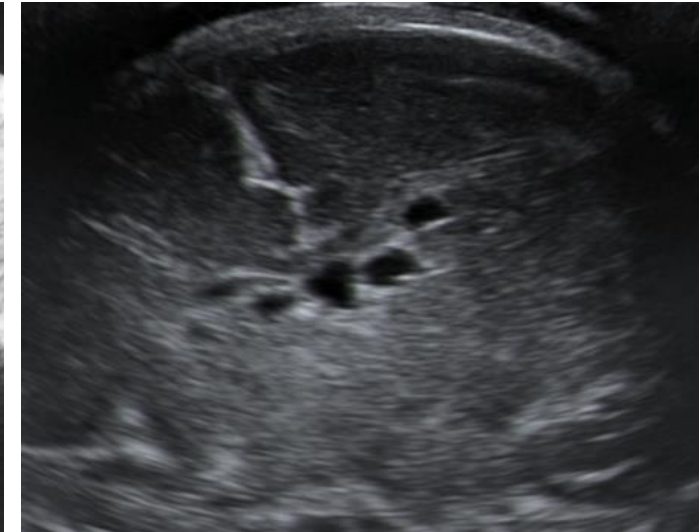
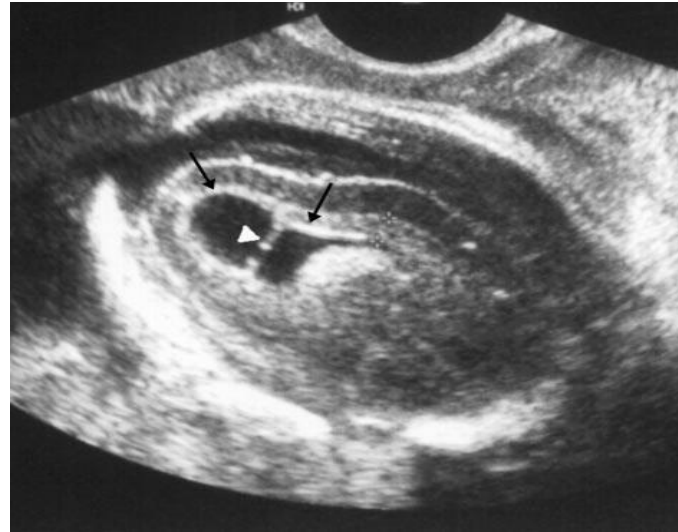
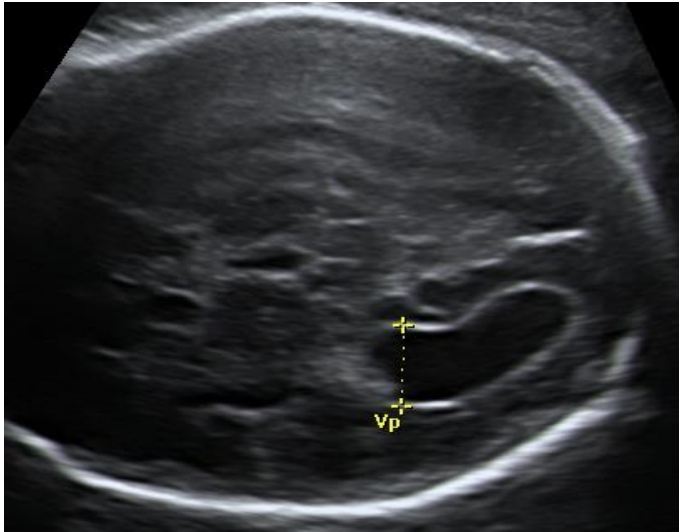
Dãn não thất : marker lệch bội



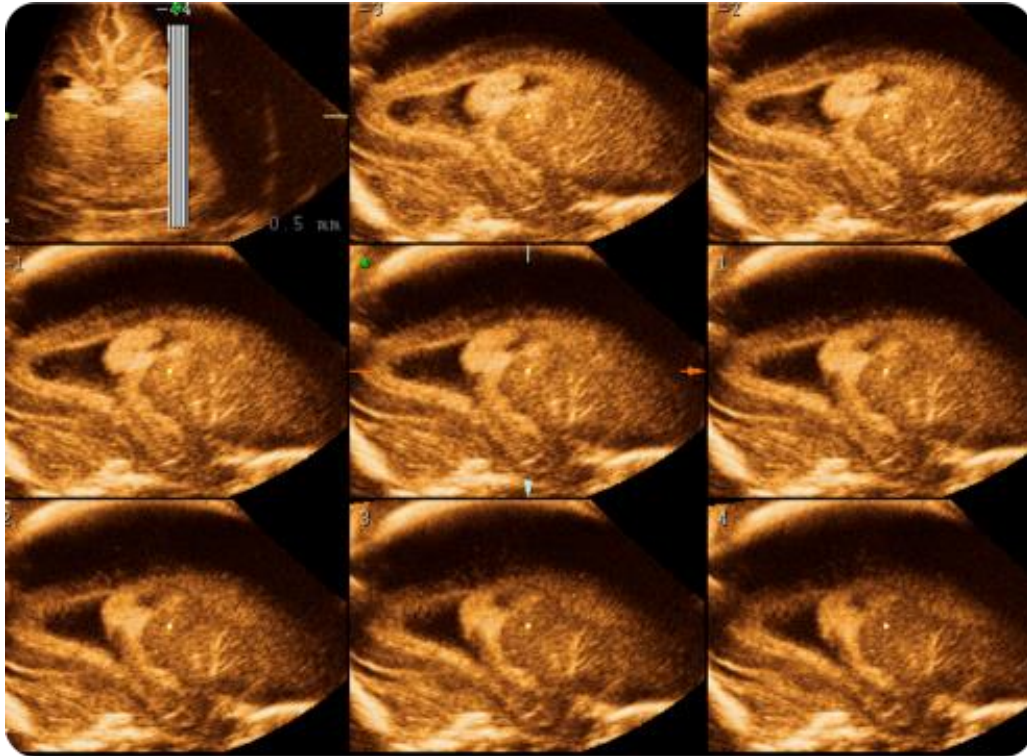
Xem xét dựa vào nguy cơ nền theo tuổi mẹ / NT và marker sinh hóa.

Dãn não thất bên: Nhiễm CMV

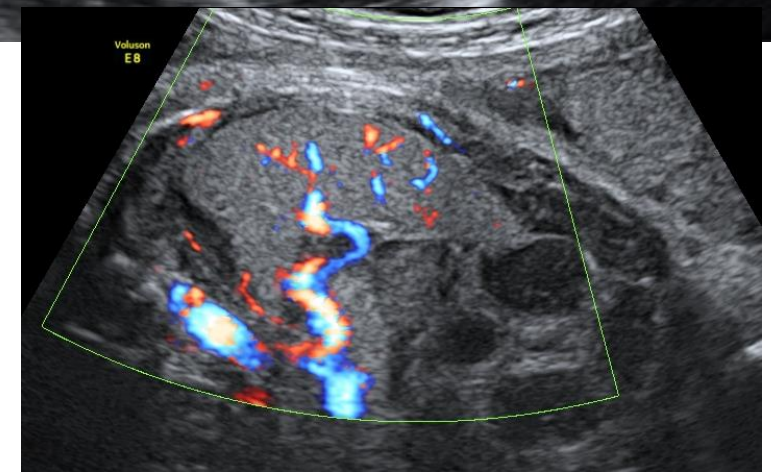




Dẫn não thất bên: Nhiễm CMV



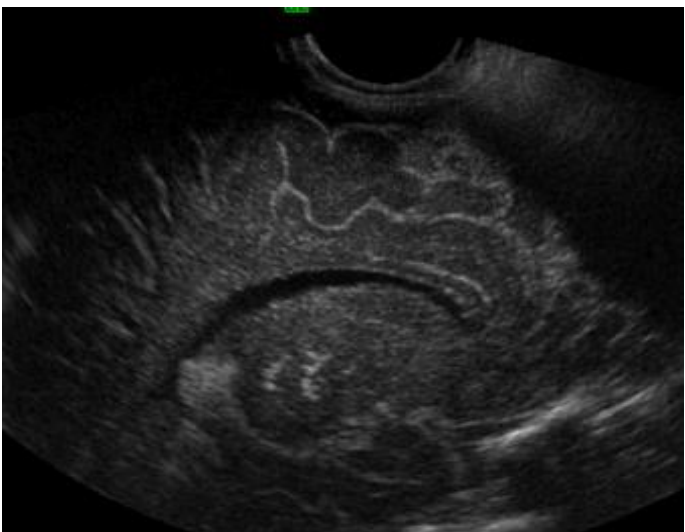
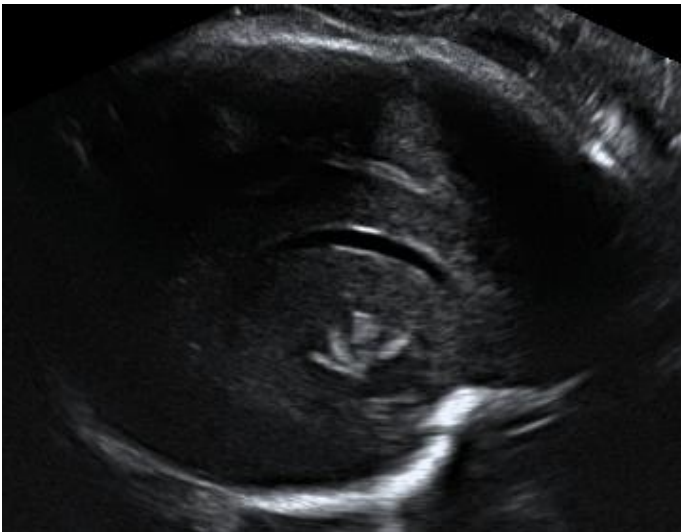
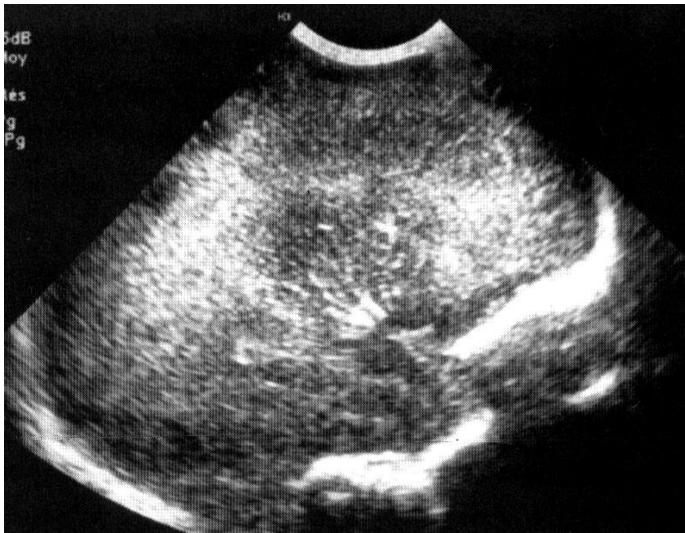
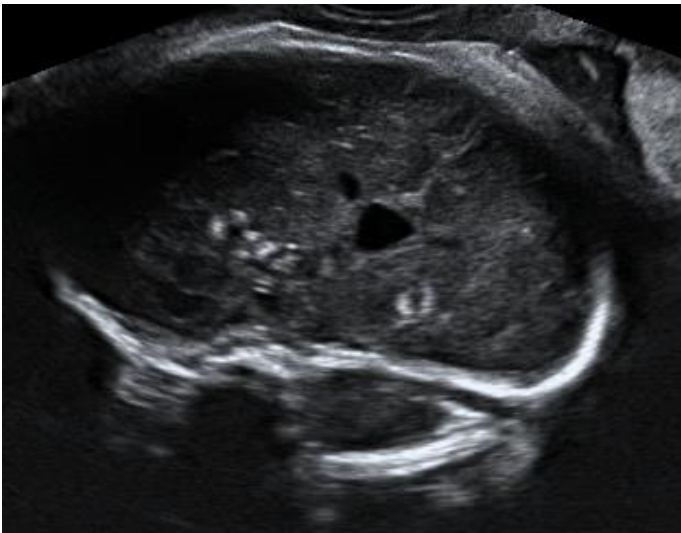
Tìm các dấu hiệu nhiễm trùng bào thai khác:
Nhau, lách, gan, chậm tăng trưởng...



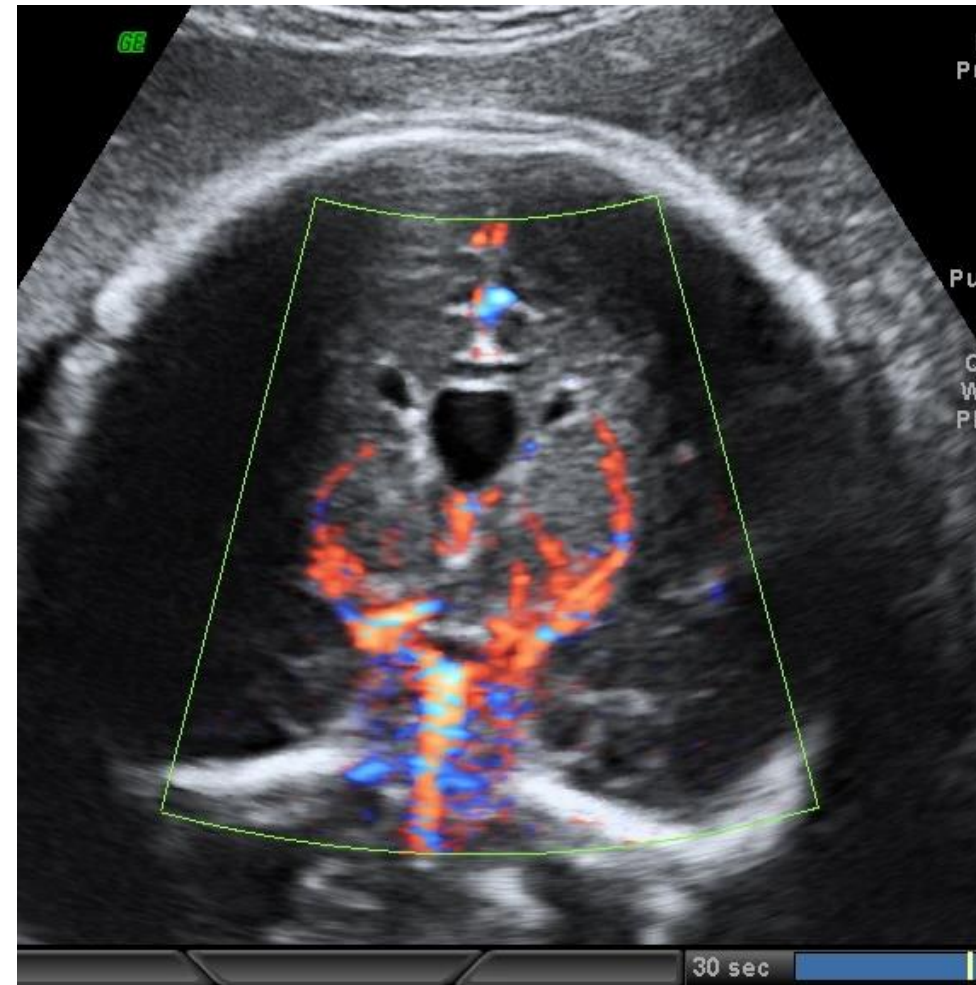
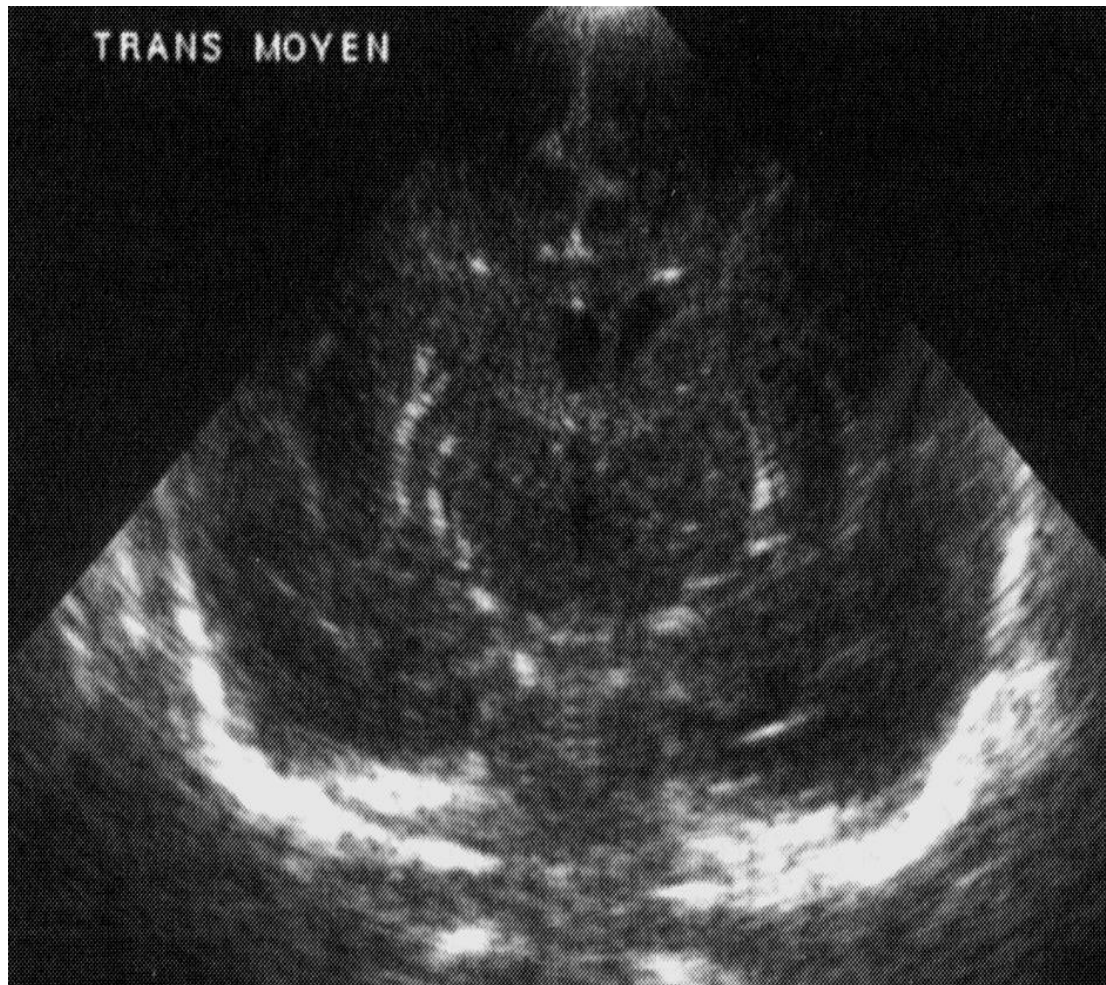
Dẫn não thất bên: Nhiễm CMV

Bất thường

ISUOG.org



Dẫn não thất bên: Nhiễm CMV



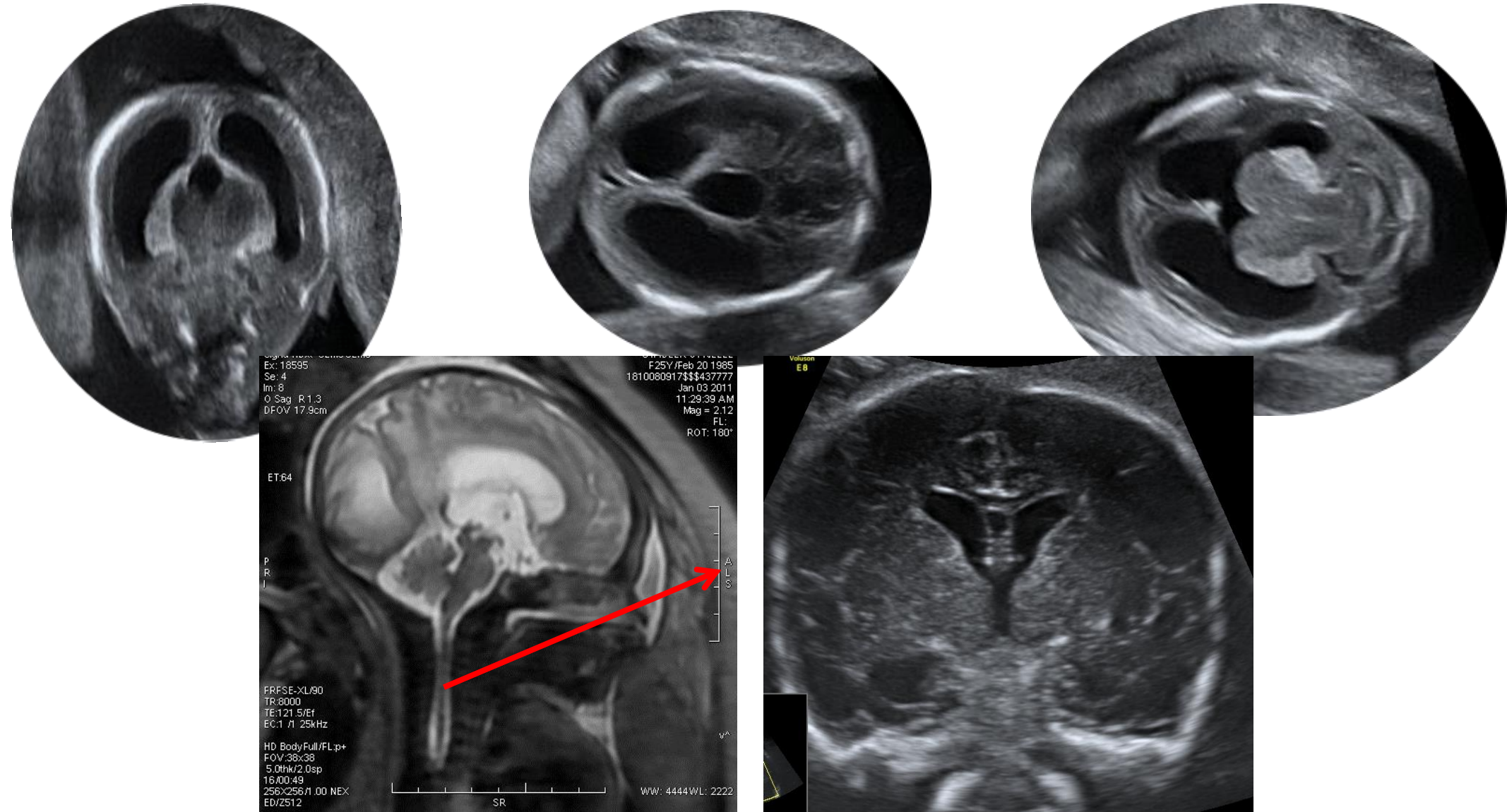
Những nốt vôi hóa ở đồi thị, dấu hiệu “cây nến”

Dẫn não thất bên: Toxoplasmosis



Dẫn não thất bên, Nốt vôi hóa

Dãn não thất bên : Hẹp Aqueduc



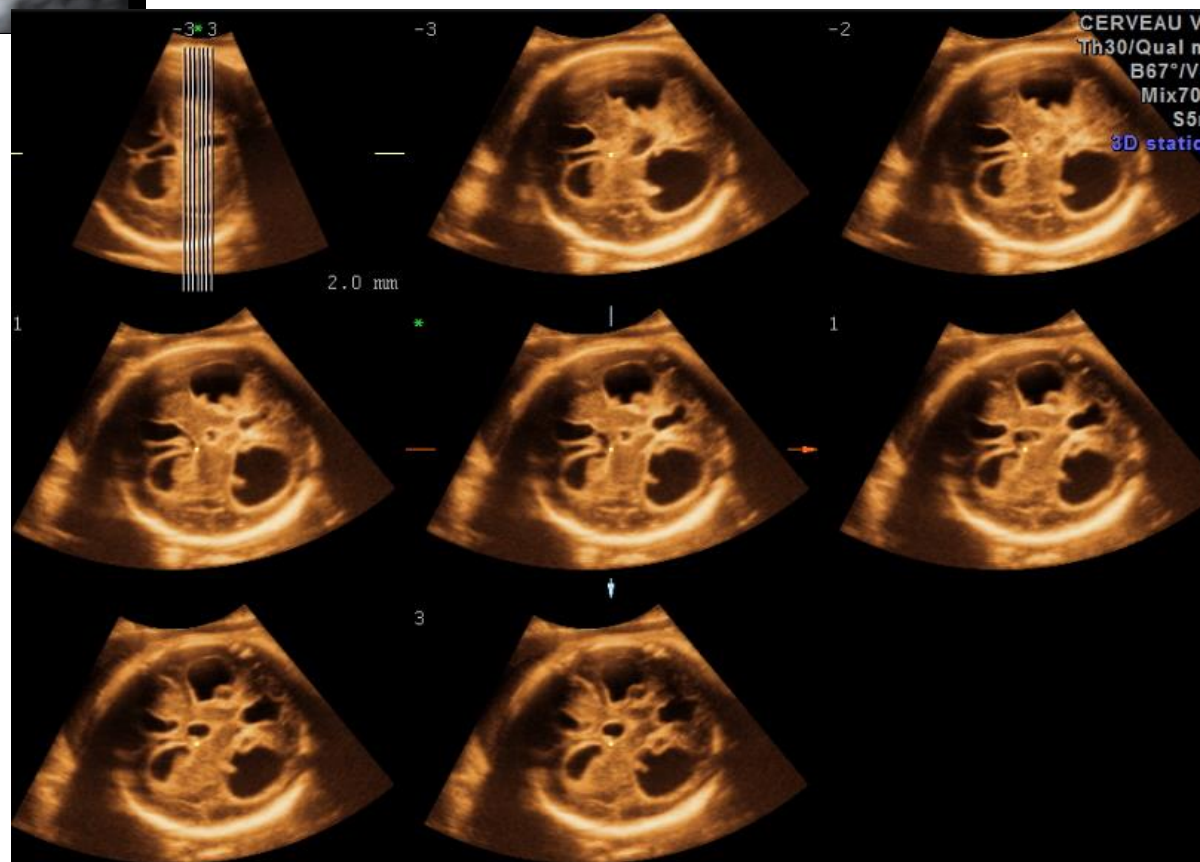


Bất thường



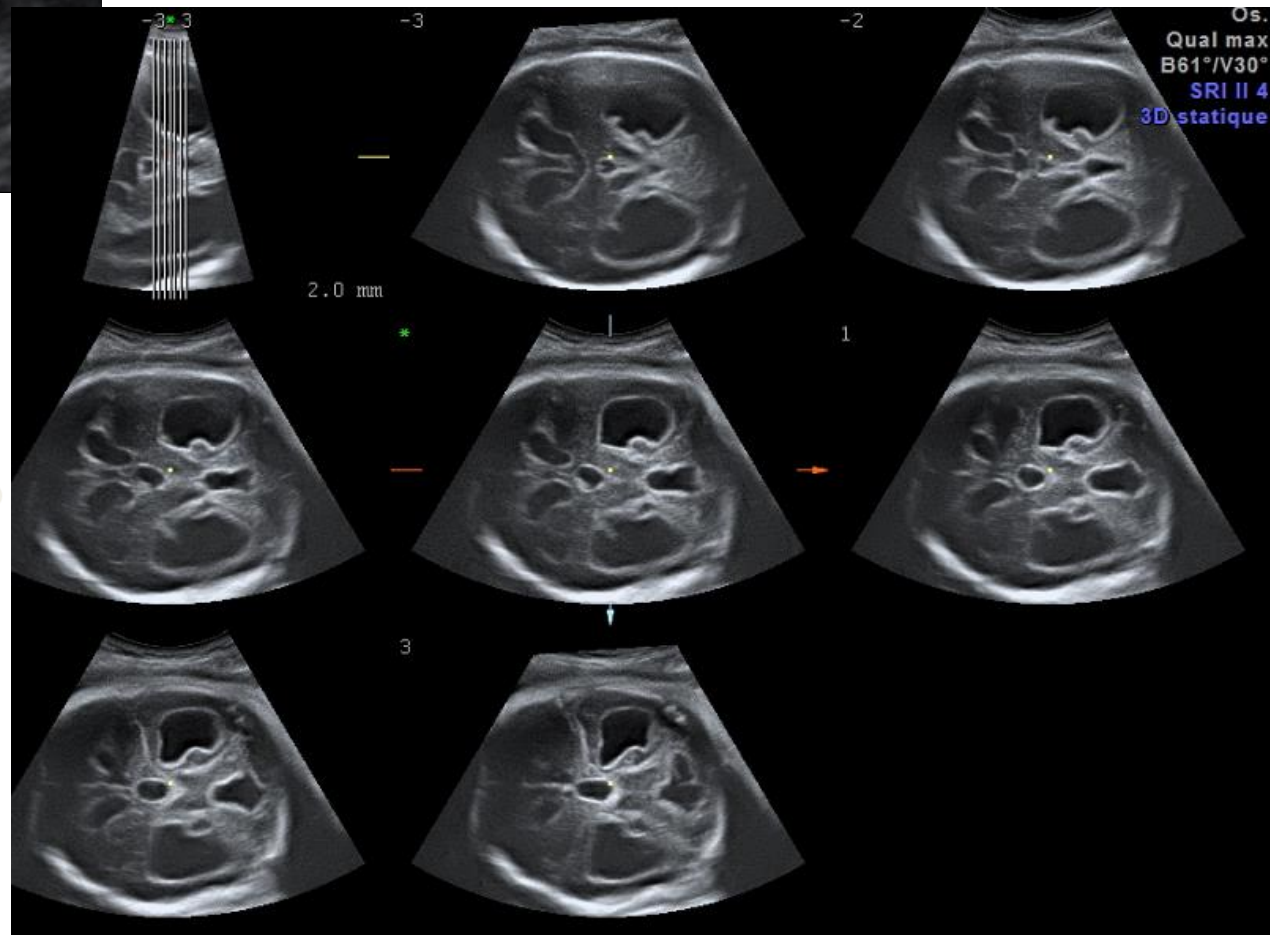
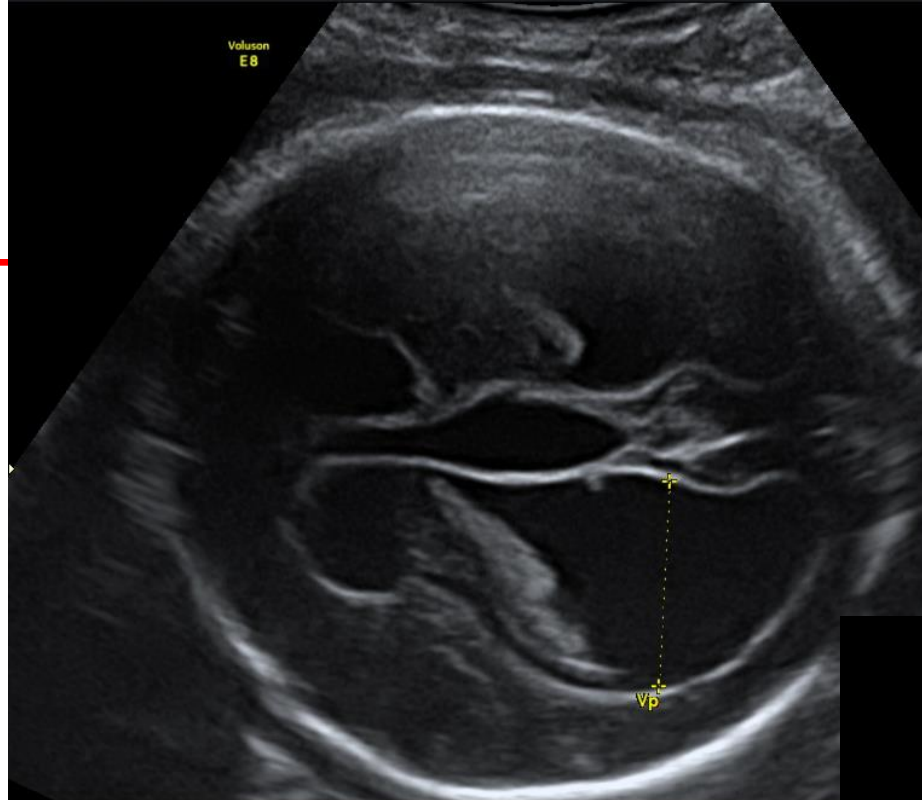
Dẫn não thất bên : Xuất huyết trong não thất

- Xuất huyết do bệnh lý tự miễn?
- Rối loạn đông máu?...



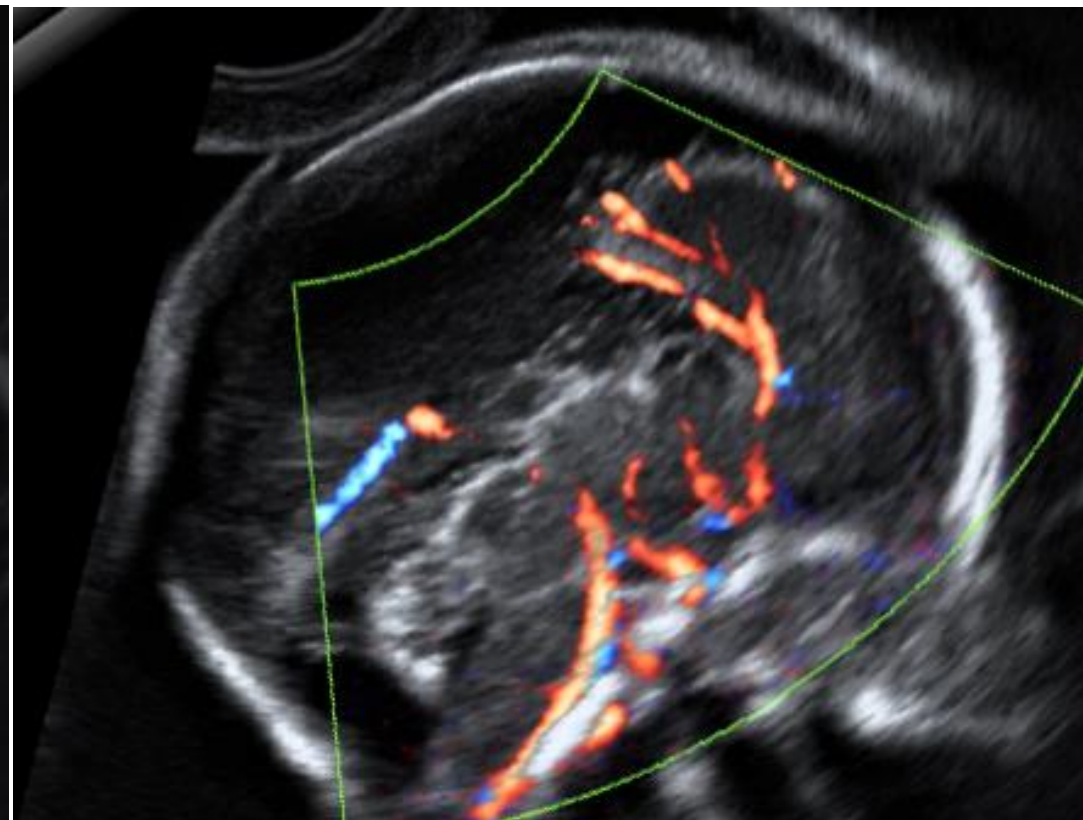
Bất thường

Dãn não thất bên : Xuất huyết trong não thất



- Xuất huyết do bệnh lý tự miễn?
- Rối loạn đông máu?...

Dãn não thất bên và bất sản thể chai

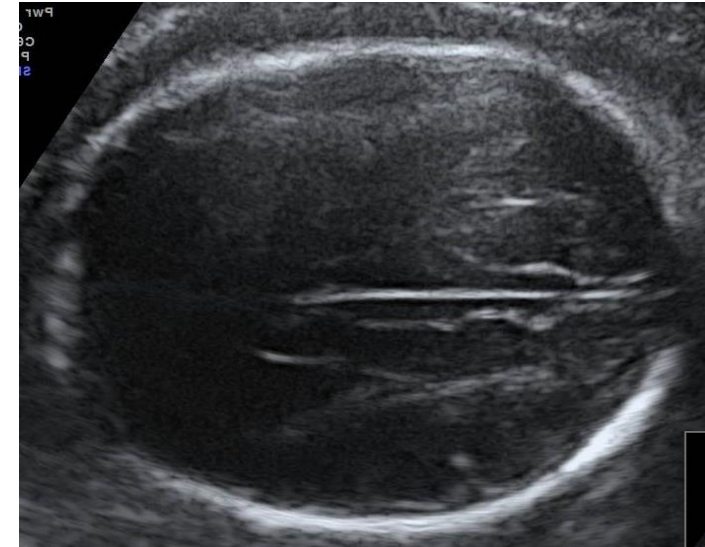


Bất sản thể chai

Bất thường

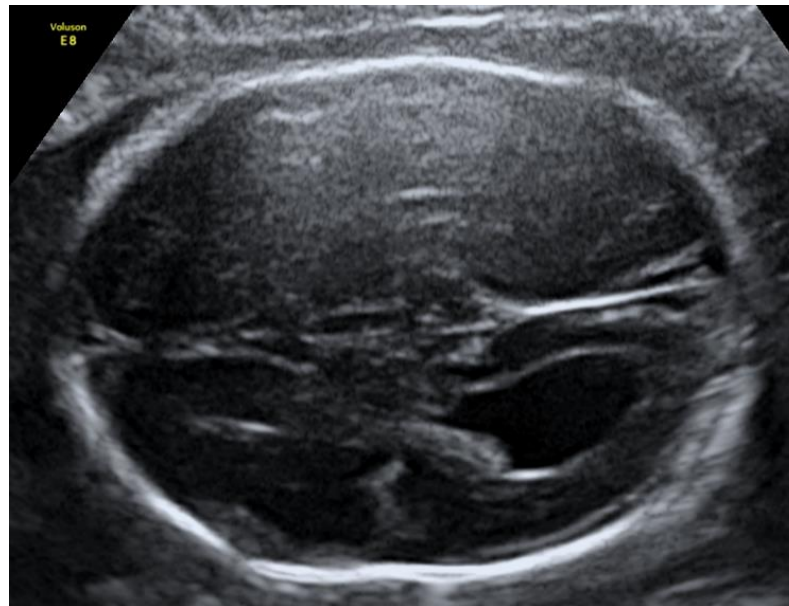


Dãn não thất bên
Colpocephaly

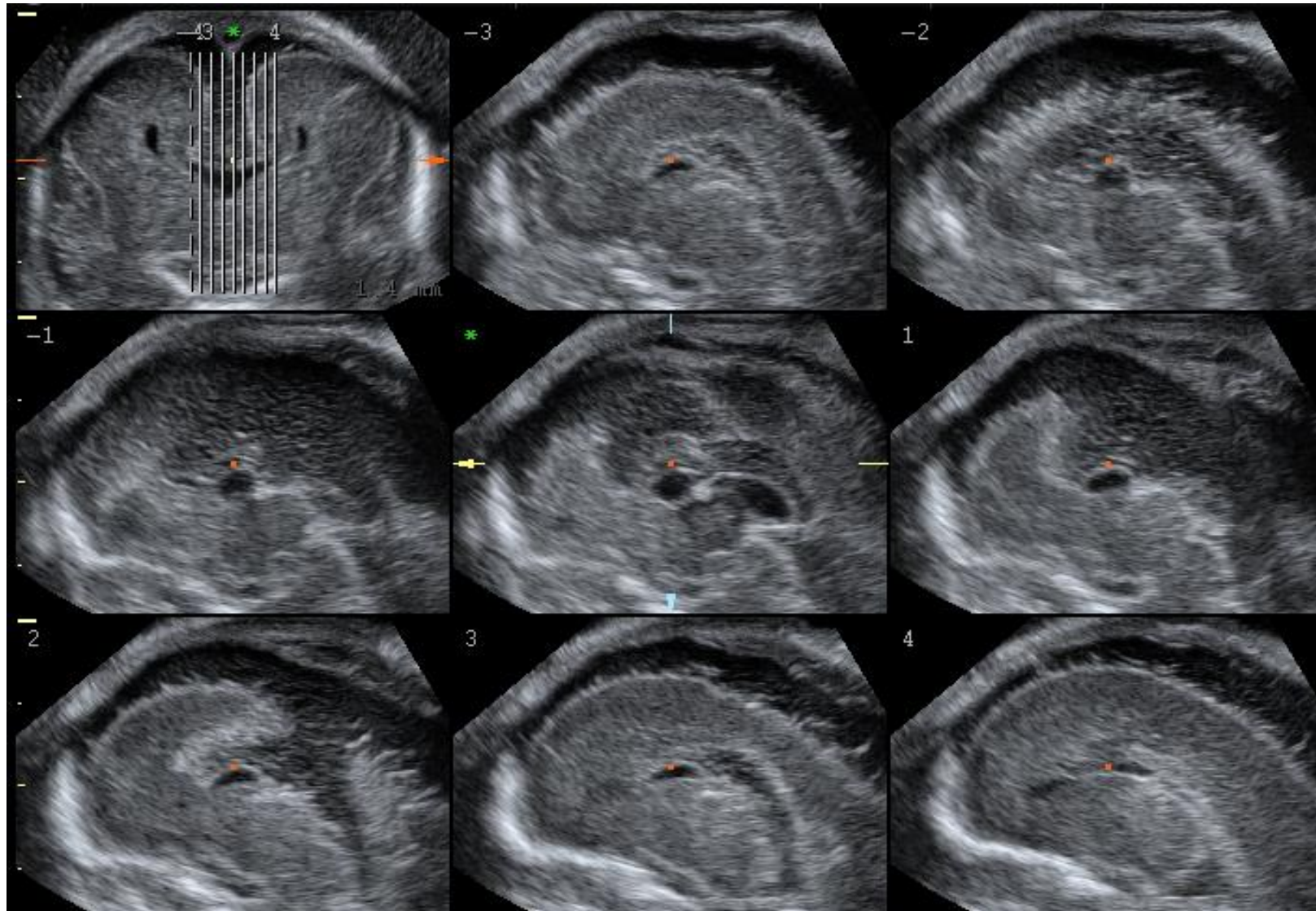


Hình “ba lá”

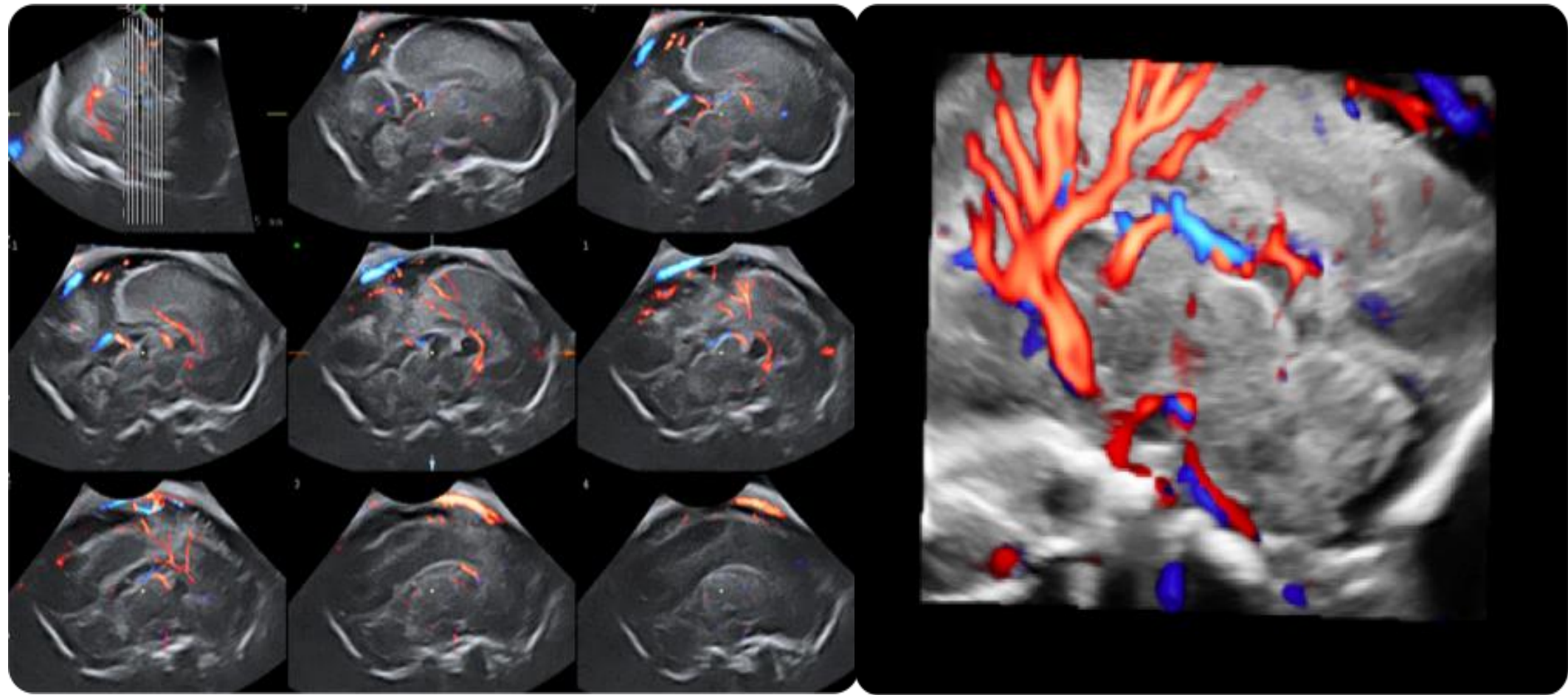
Bất thường hình
dạng của sừng trán



Bất sản thể chai



Bất sản thể chai





Bất thường rãnh hóa



Counseling in fetal medicine: agenesis of the corpus callosum

S. SANTO*, F. D'ANTONIO*, T. HOMFRAY†, P. RICH‡, G. PILU§, A. BHIDE*,
B. THILAGANATHAN* and A. T. PAPAGEORGHIU*

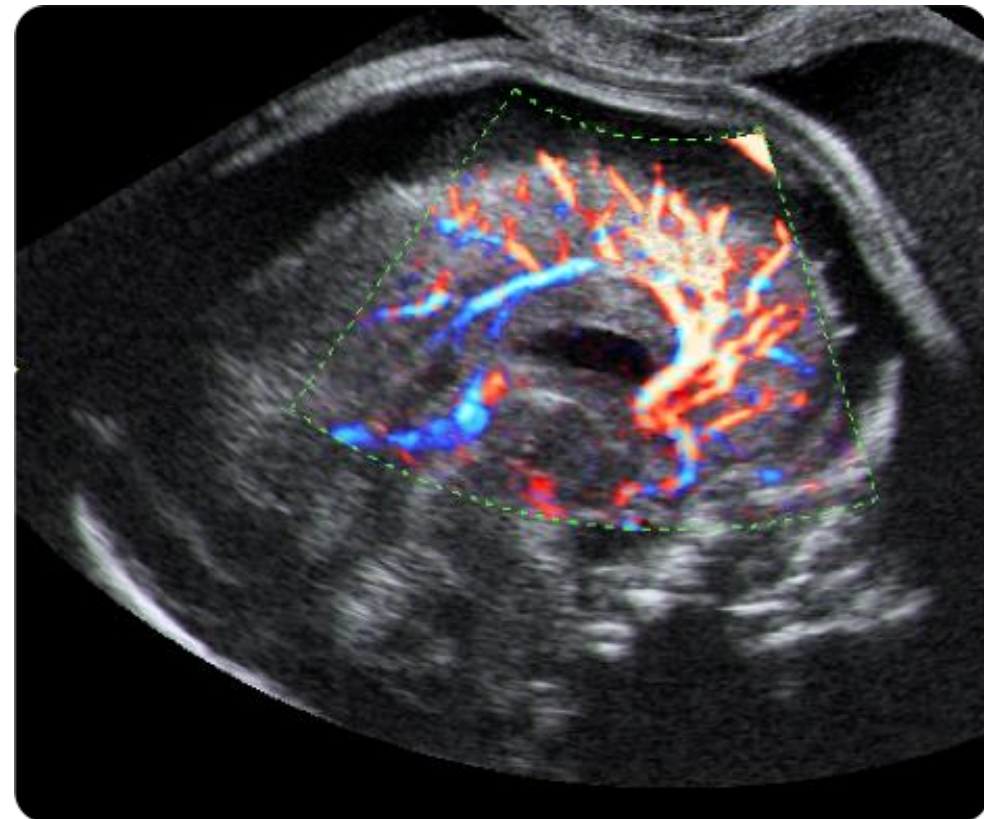
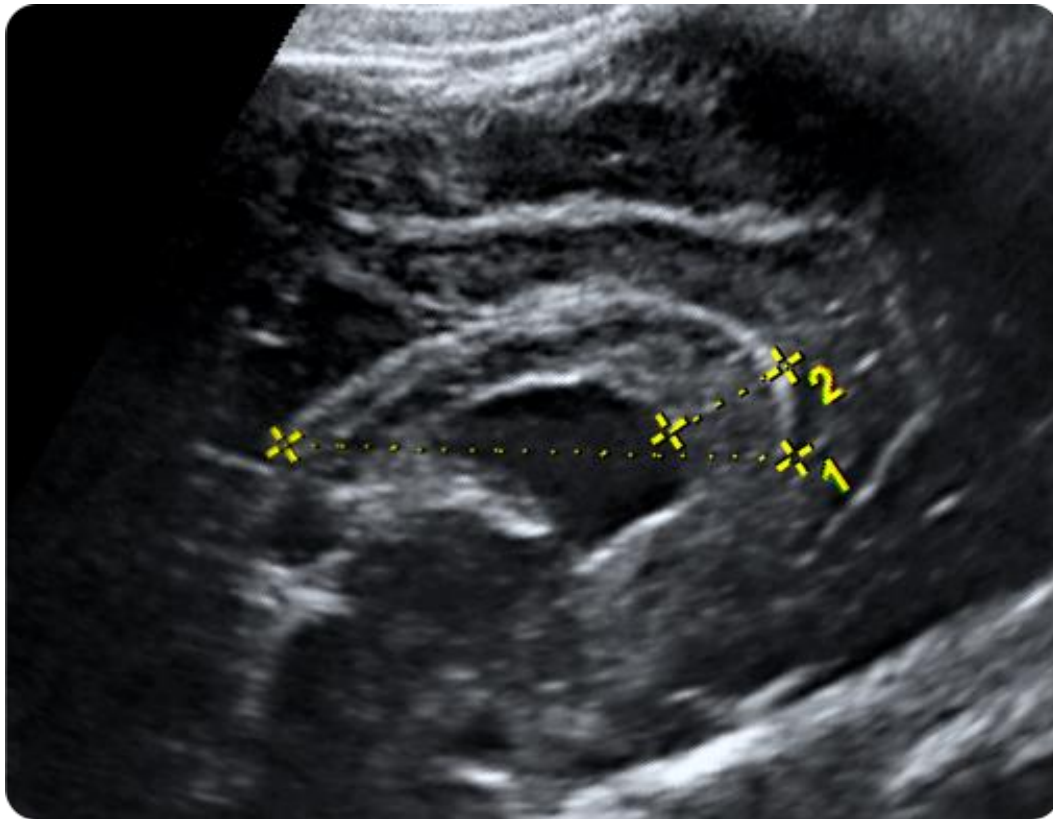
*Fetal Medicine Unit, Academic Department of Obstetrics and Gynaecology, St George's, University of London, London, UK;

†Department of Clinical Genetics, St George's, University of London, London, UK; ‡Department of Neuroradiology, St George's Healthcare N

Reference	Year	Type of ACC	Cases with chromosomal abnormality (n (%))	Cases with other brain abnormality (n (%))
Sczur ¹³	1988	Both	2/33 (6.1)	—
Bertino ²³	1988	Both	—	3/7 (42.9)
Blum ²²	1990	Both	—	8/16 (50)
Pilu ^{5*}	1993	Both	6/29 (20.7)	10/35 (28.6)
Vergani ⁴	1994	Both	1/14 (7.1)	5/14 (35.7)
Bennett ^{8†}	1996	Both	2/10 (20)	3/14 (21.4)
D'Ercole ¹¹	1998	Both	0/14 (0)	9/14 (64.3)
Sonigo ¹²	1998	Both§	—	30/50 (60)
Marszal ²⁶	2000	NS	2/7 (28.6)	—
Dos Santos ²⁵	2002	Complete	3/17 (17.6)	—
Shevell ⁶	2002	Both	3/24 (12.5)	—
Glenn ⁹	2005	Both	—	8/8 (100)
Bedeschi ¹⁵	2006	Both	7/62 (11.3)	—
Volpe ²	2006	Partial	3/18 (16.7)	8/19 (42.1)
Pisani ¹⁶	2006	Complete	0/9 (0)	—
Fratelli ¹⁰	2007	Complete	33/117 (28.2)	30/117 (25.6)
Chadie ¹⁷	2008	Both	0/13 (0)	—
Schell-Apacik ³	2008	Both	8/41 (19.5)	—
Tang ²⁰	2009	Complete	—	27/29 (93.1)
Cignini ²⁴	2010	Complete	1/17 (5.9)	—
Ghi ⁷	2010	Partial	—	5/14 (35.7)
Li ^{14‡}	2012	Complete	12/41 (29.3)	27/41 (65.9)
Total			83/466 (17.8)	173/378 (45.8)

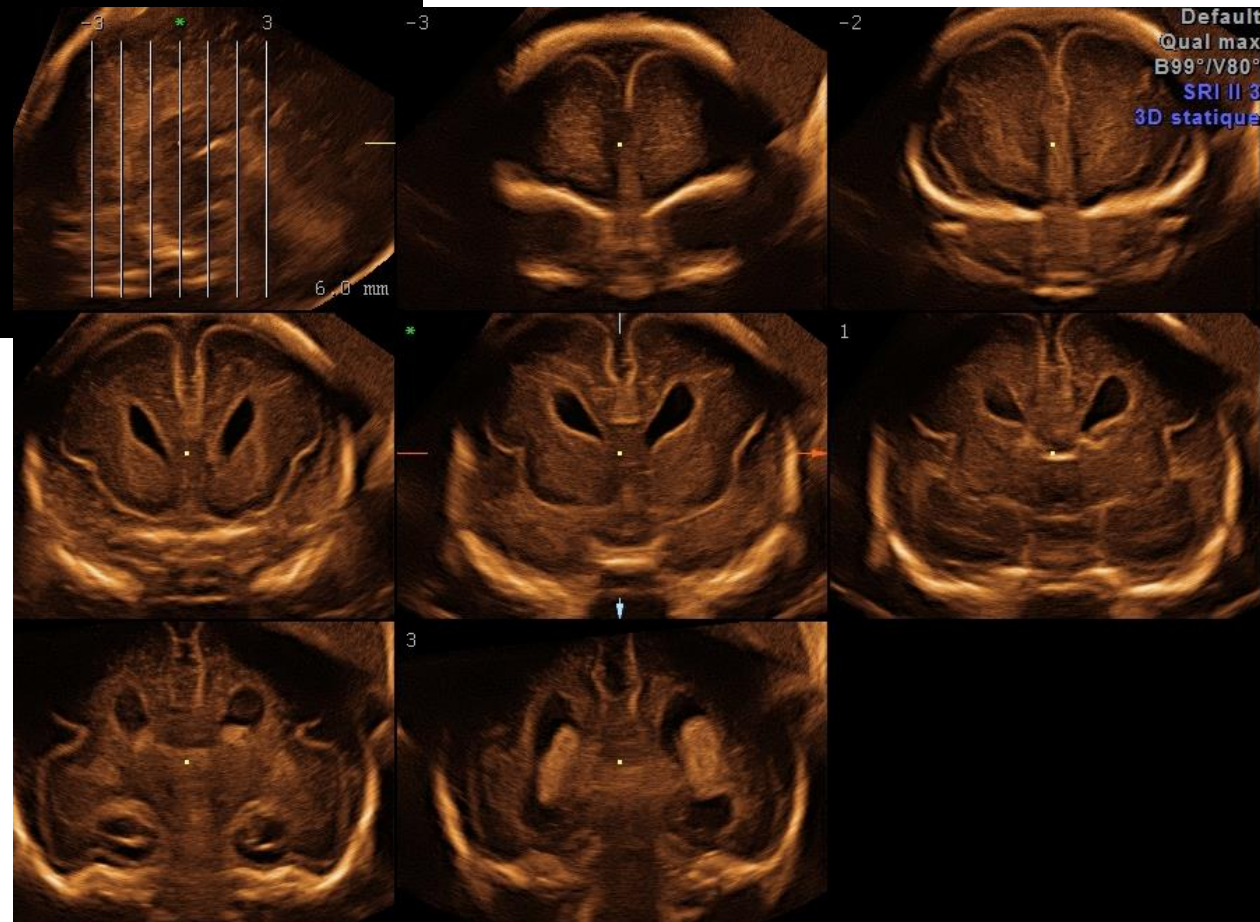
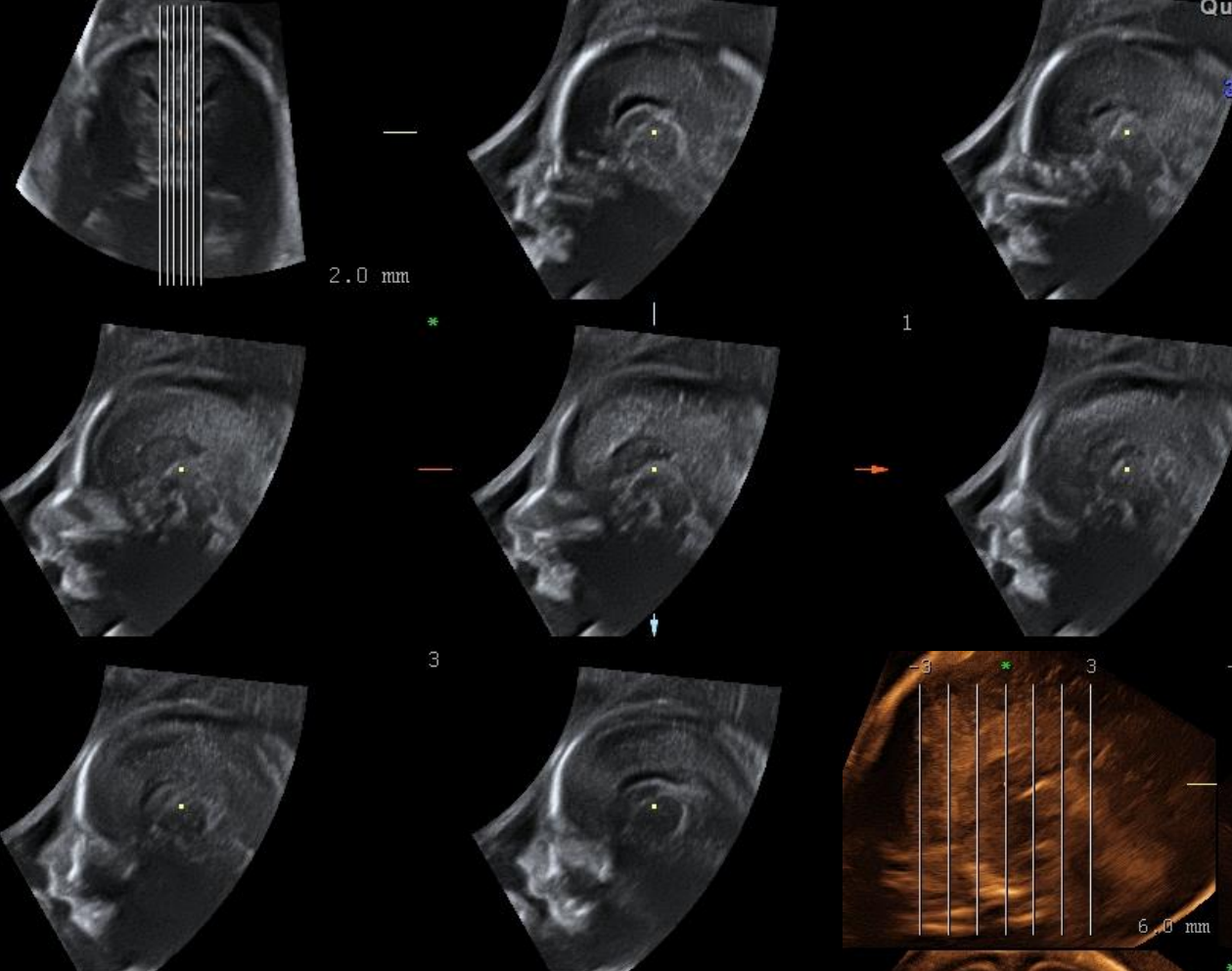
Denominators in some studies may differ because karyotype was not reported in all cases. *Includes the paper by Sandri *et al.*²¹. †Excludes one case of holoprosencephaly. ‡Only includes cases of complete ACC. §Not clearly specified whether ACC or other callosal abnormalities. Both, both partial and complete ACC; NS, not stated.

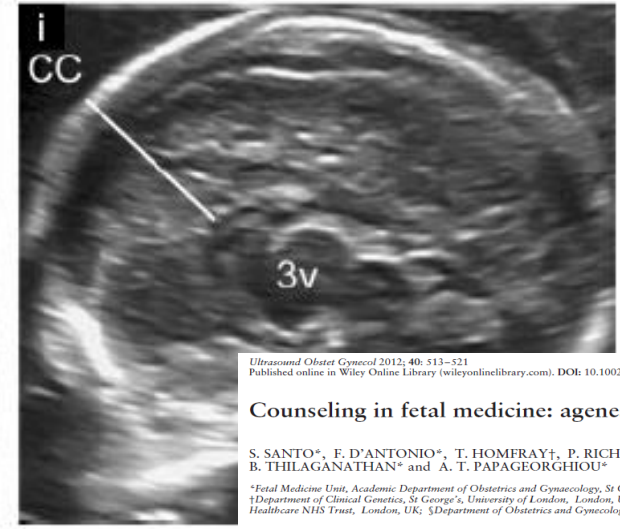
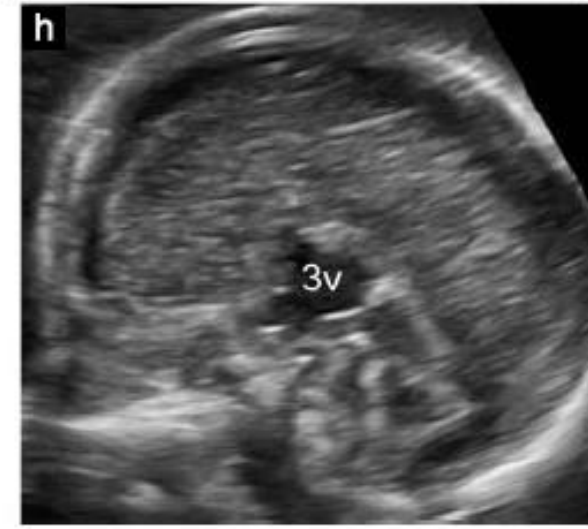
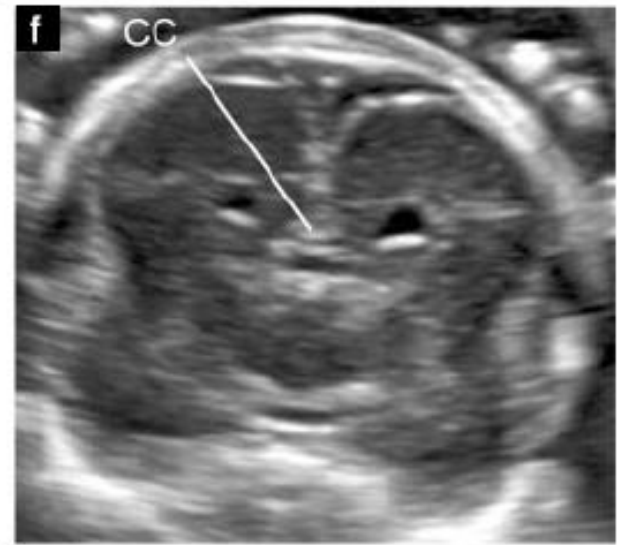
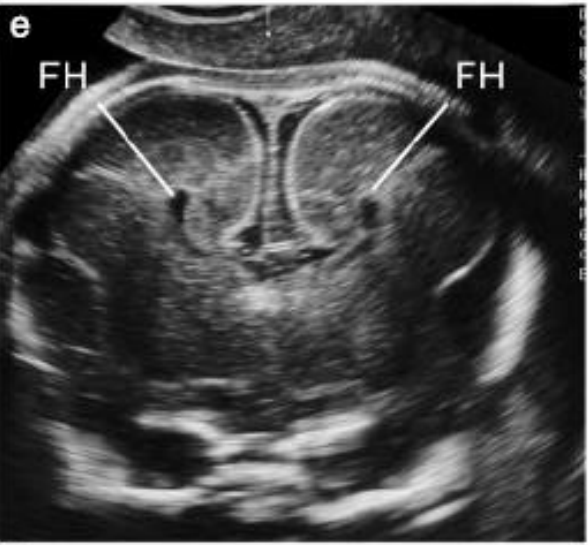
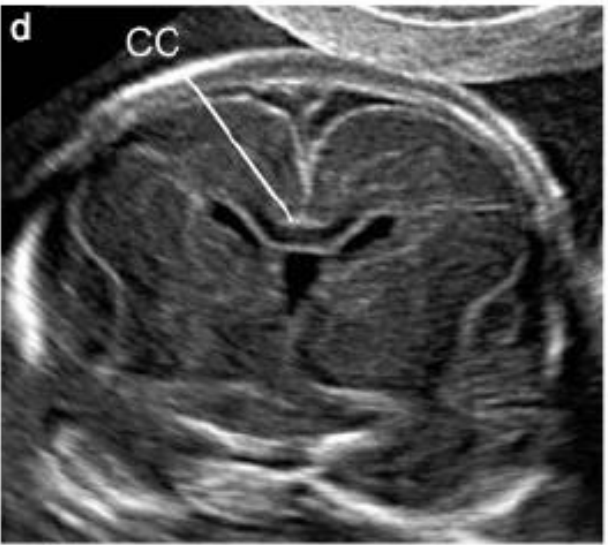
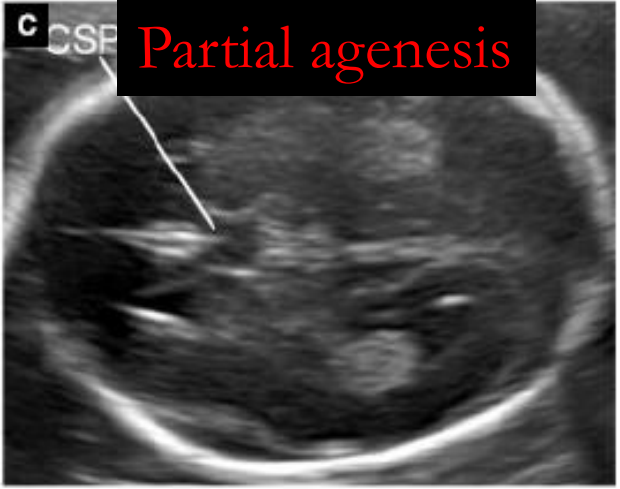
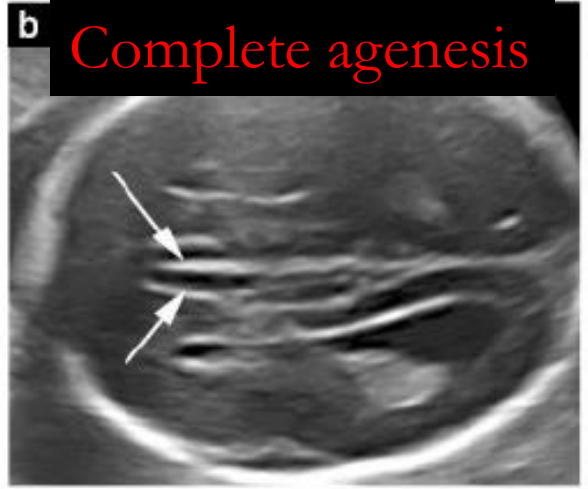
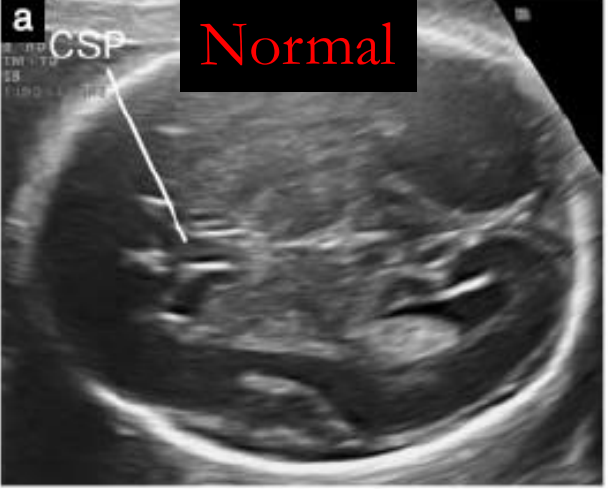
“Nghệ thuật” : Loạn sản, Thể chai ngấn



Bất thường

Loạn sản thể chai





Ultrasound Obstet Gynecol 2012; 40: 513-521
Published online in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/uog.12315

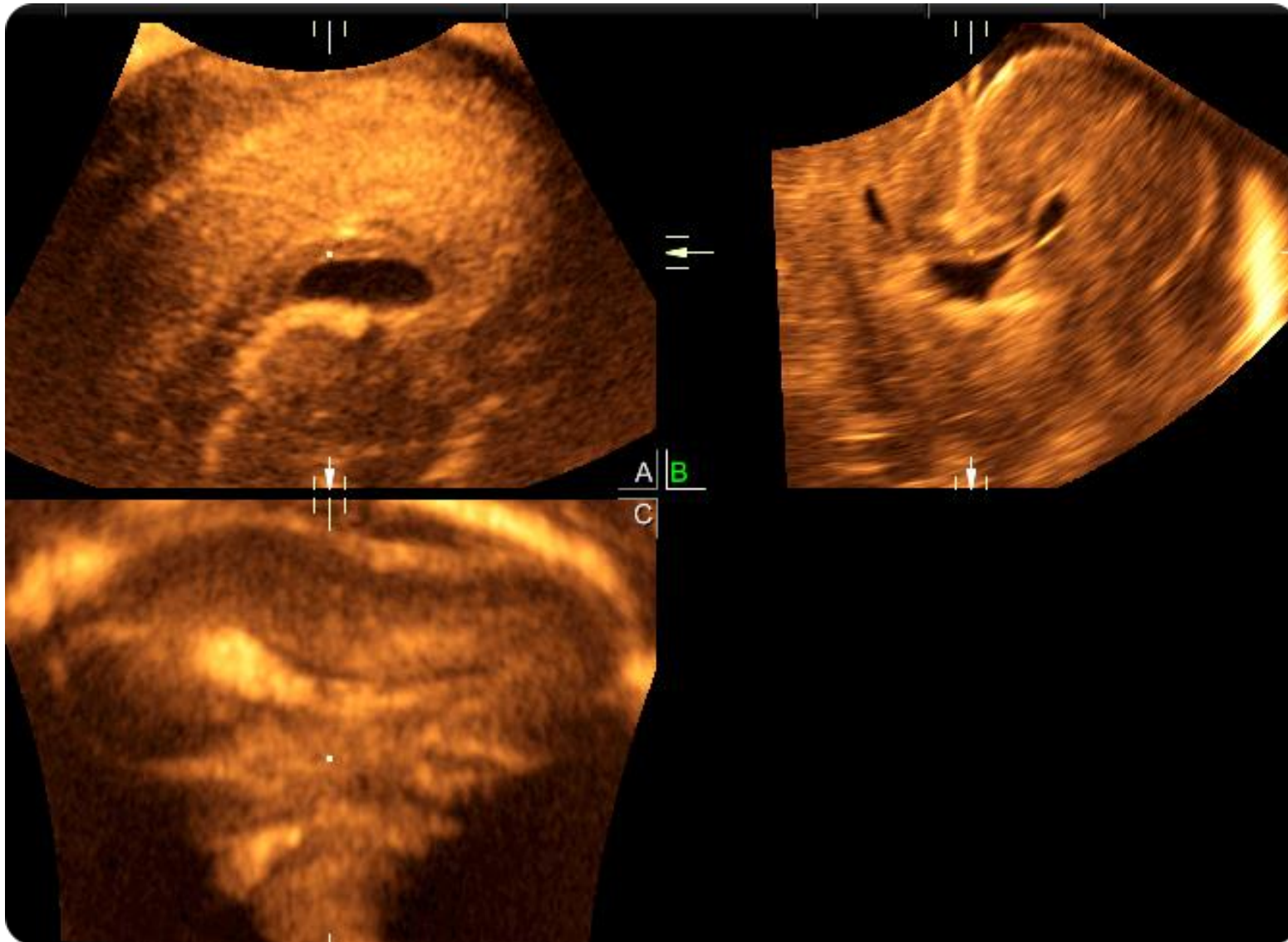
Counseling in fetal medicine: agenesis of the corpus callosum

S. SANTO*, F. D'ANTONIO*, T. HOMFRAY†, P. RICH‡, G. PILU§, A. BHIDE*,
B. THILAGANATHAN* and A. T. PAPAGEORGHIU*

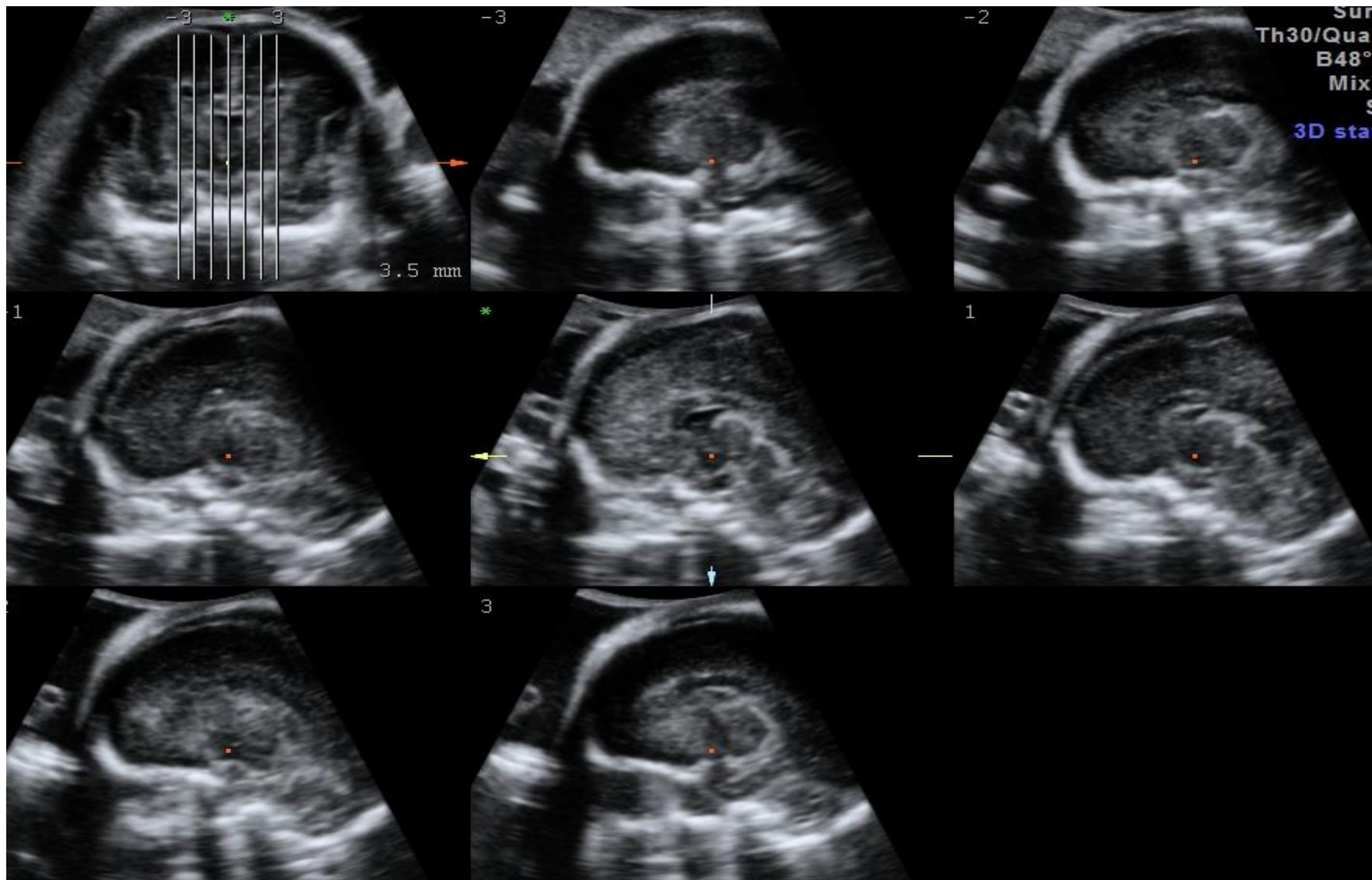
*Fetal Medicine Unit, Academic Department of Obstetrics and Gynaecology, St George's, University of London, London, UK; †Department of Clinical Genetics, St George's, University of London, London, UK; ‡Department of Neuroradiology, St George's Healthcare NHS Trust, London, UK; §Department of Obstetrics and Gynecology, University of Bologna, Bologna, Italy

Thể chai nhỏ

Bất thường



Thể chai nhỏ



Corpus callosum growth in normal and growth-restricted fetuses

Israel Goldstein^{1*}, Ada Tamir², Albert E. Reece³ and Zeev Weiner¹

¹Department of Obstetrics and Gynecology, Rambam Medical Center, Haifa, Israel

²Department of Community Medicine and Epidemiology, Rappaport Faculty of Medicine, Technion, Haifa, Israel

³Department of Obstetrics and Gynecology and Reproductive Science, University of Maryland, Baltimore, USA

Table 1—Dimensions of the CC in the outer length (cm) throughout gestation of normal fetuses

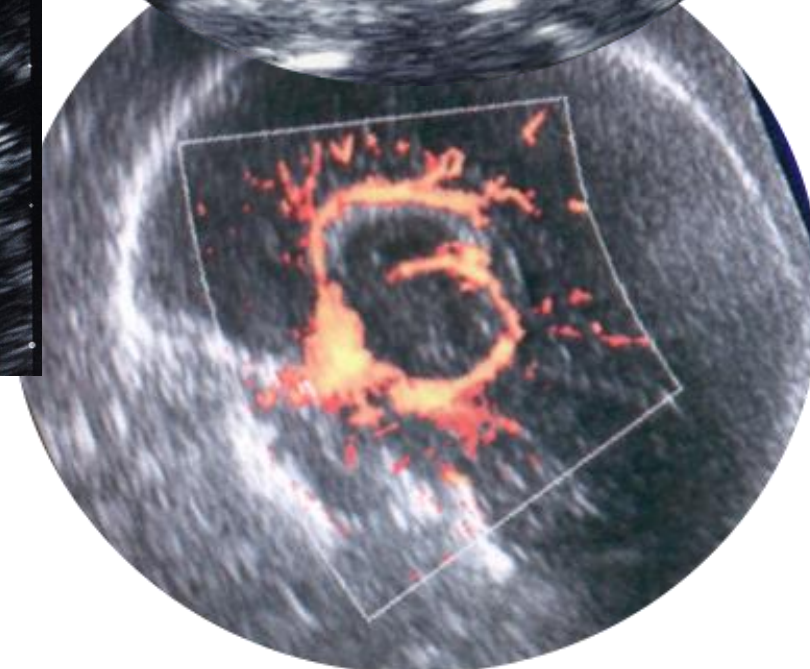
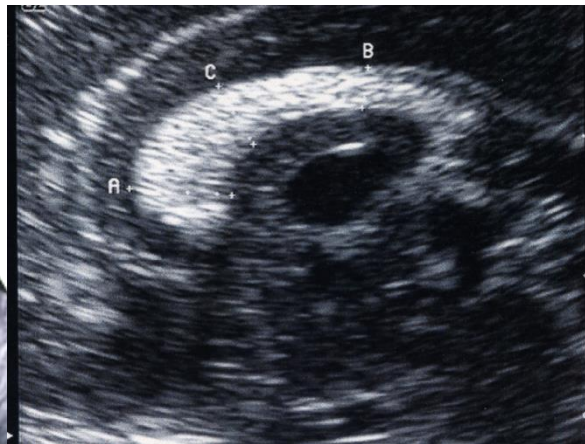
GA	Mean	SD	10 th	25 th	Median	75 th	90 th	N
17–18	1.149	0.250	0.808	0.913	1.145	1.385	1.510	12
19–20	1.686	0.288	1.281	1.508	1.675	1.890	2.049	20
21	2.253	0.214	2.026	2.100	2.170	2.380	2.636	15
22	2.611	0.235	2.254	2.430	2.580	2.805	2.898	21
23	2.765	0.198	2.495	2.650	2.765	2.878	3.025	44
24	2.911	0.179	2.628	2.820	2.930	3.020	3.188	43
25	3.118	0.200	2.834	3.020	3.120	3.255	3.428	25
26	3.359	0.212	3.116	3.240	3.330	3.440	3.658	17
27–28	3.424	0.211	3.050	3.240	3.450	3.600	3.650	19
29–30	3.838	0.290	3.450	3.640	3.790	4.085	4.320	13
31–33	3.945	0.302	3.444	3.770	3.980	4.195	4.330	17

Table 2—Dimensions of the CC lower margin (cm) throughout gestation of normal fetuses

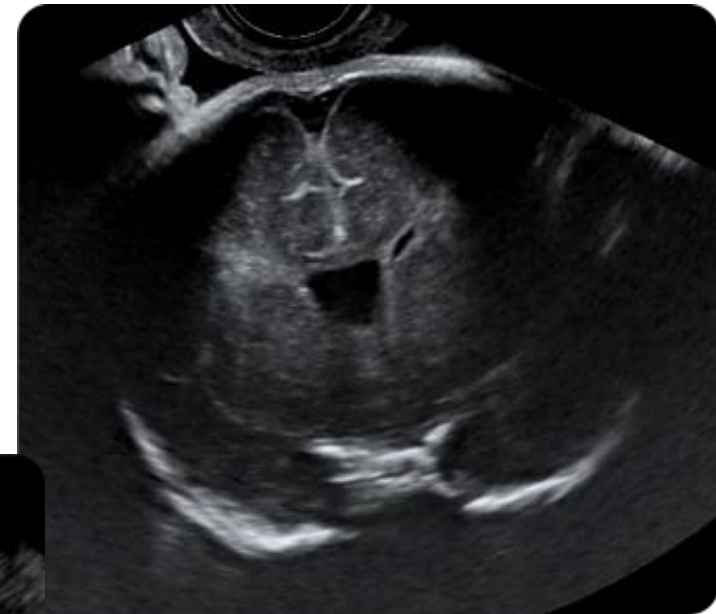
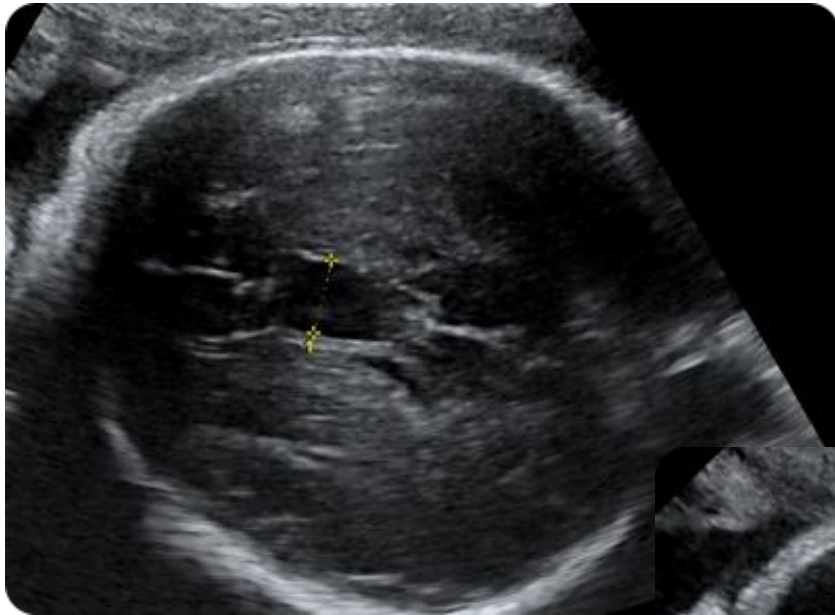
GA	Mean	SD	10 th	25 th	Media	75 th	90 th	N
17–18	0.909	0.178	0.665	0.750	0.885	1.098	1.164	12
19–20	1.315	0.281	0.950	1.150	1.250	1.530	1.670	19
21	1.741	0.177	1.518	1.600	1.730	1.860	2.010	15
22	2.068	0.245	1.728	1.870	2.040	2.245	2.432	21
23	2.178	0.195	1.920	2.063	2.185	2.280	2.455	44
24	2.296	0.157	2.098	2.160	2.310	2.380	2.526	43
25	2.481	0.232	2.098	2.360	2.480	2.625	2.820	25
26	2.682	0.212	2.492	2.605	2.640	2.760	2.964	17
27–28	2.751	0.212	2.480	2.610	2.780	2.870	3.010	19
29–30	3.132	0.213	2.924	2.975	3.070	3.200	3.572	13
31–33	3.213	0.222	2.948	3.015	3.200	3.360	3.588	17



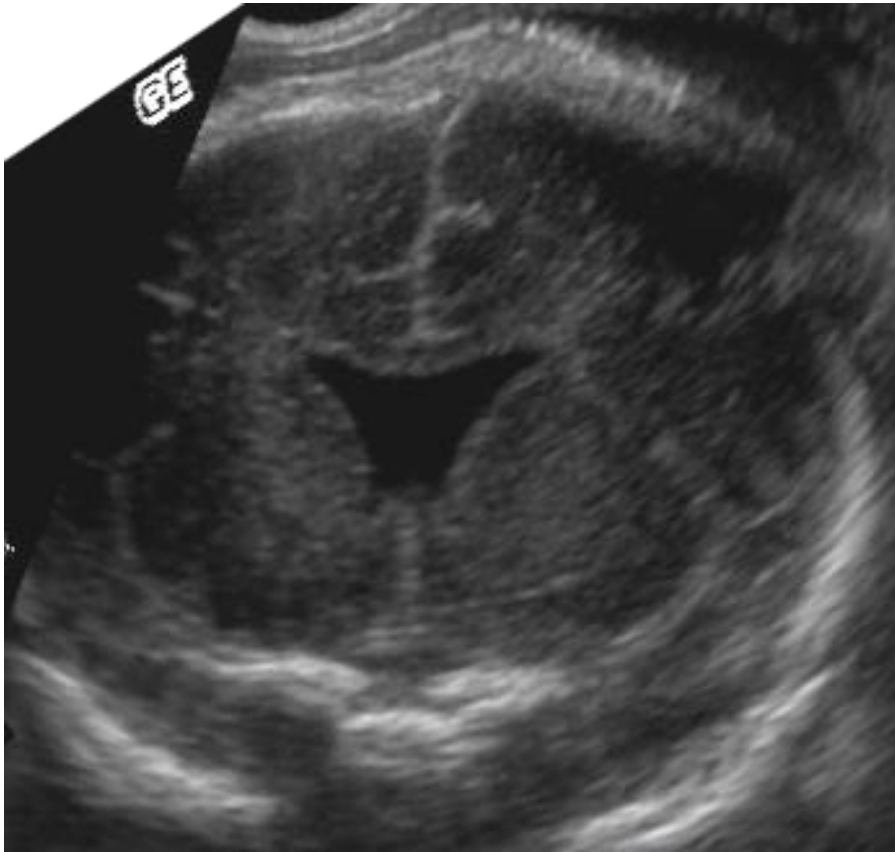
Bướu mỡ ở
thể chai



Xoang vách trong suốt: lớn



Vách trong suốt: Bất sản



Septal agenesis

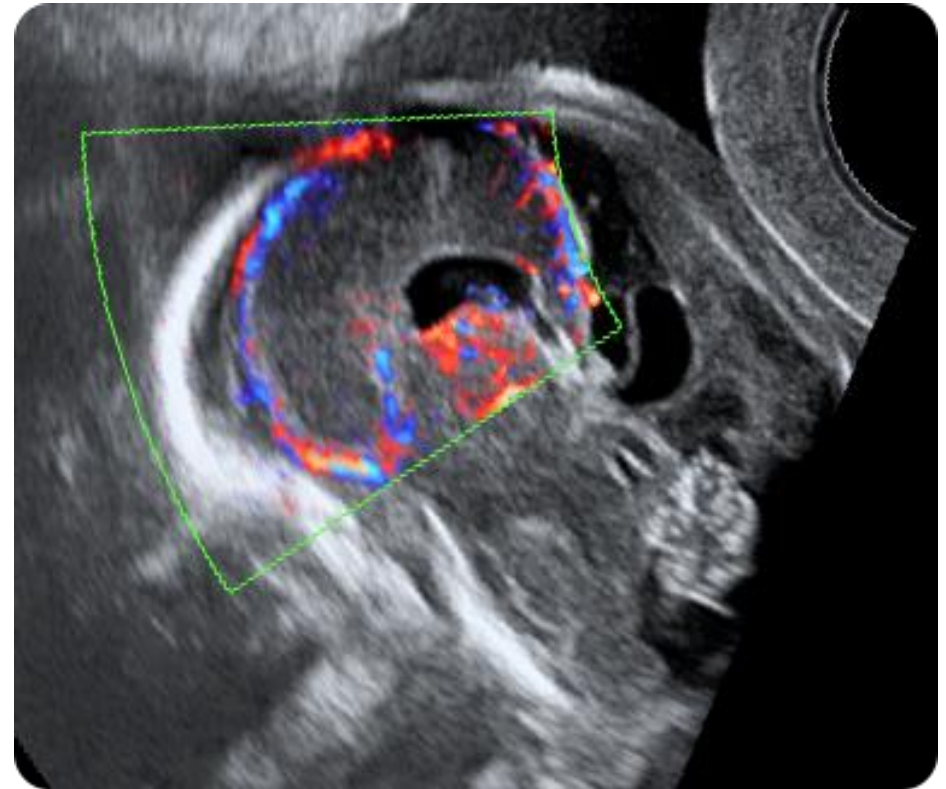


Lobar holoprosencephaly

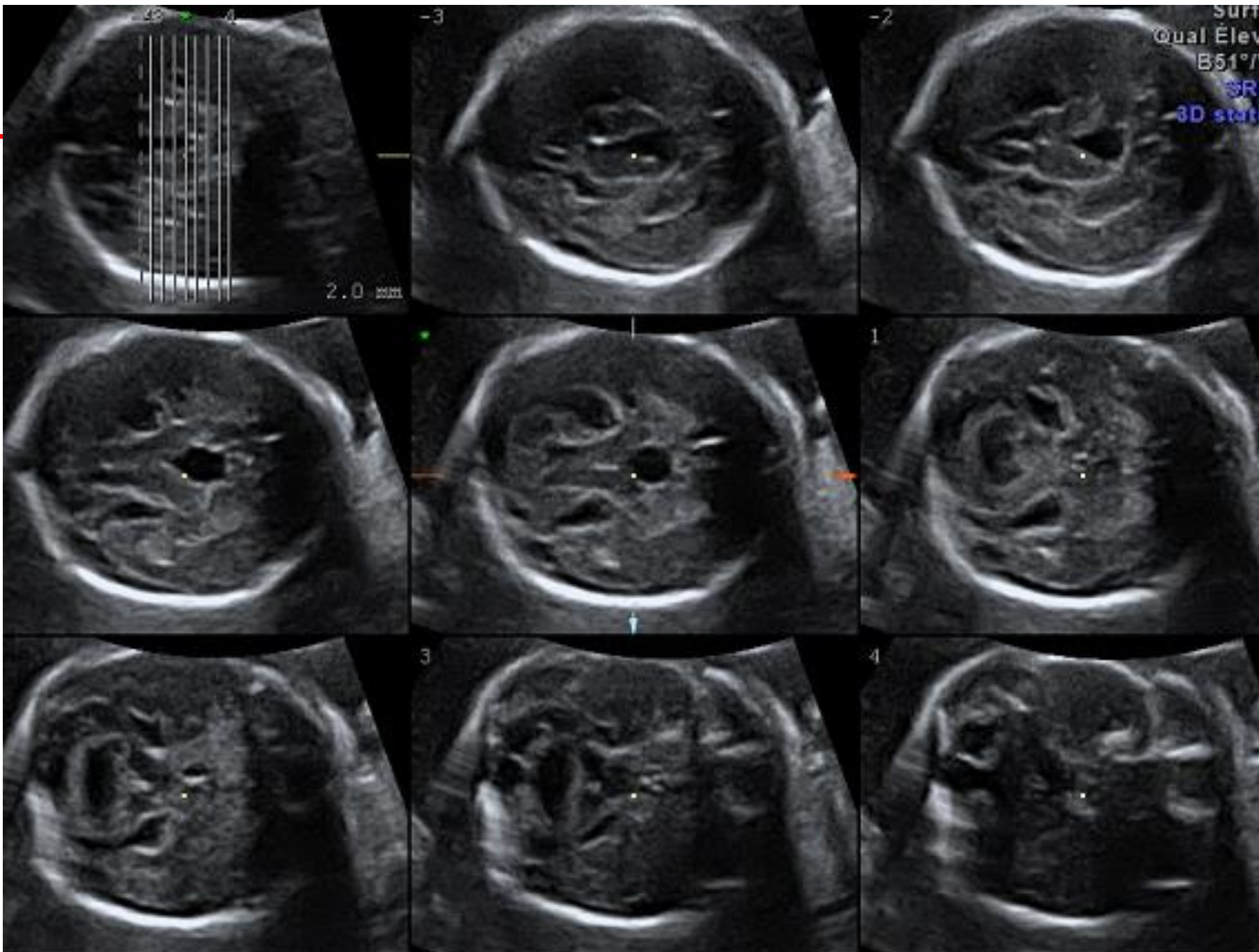
Vách trong suốt: Bất sản



Bất sản vách trong suốt



Lobar holoprosencephaly



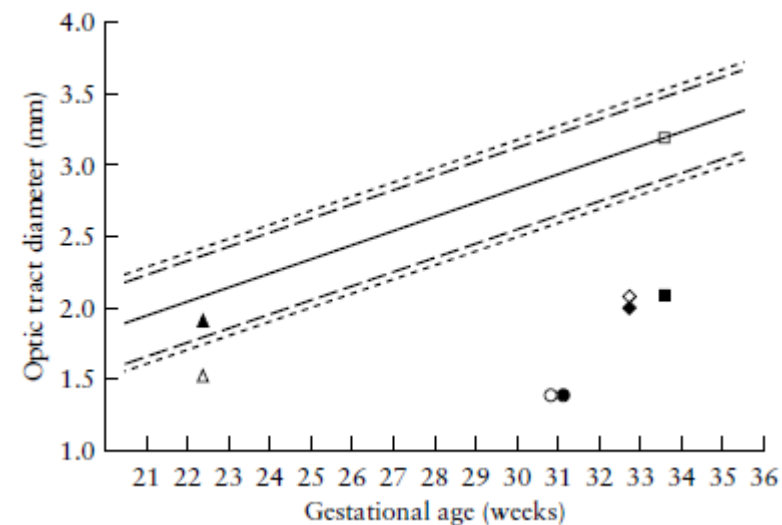
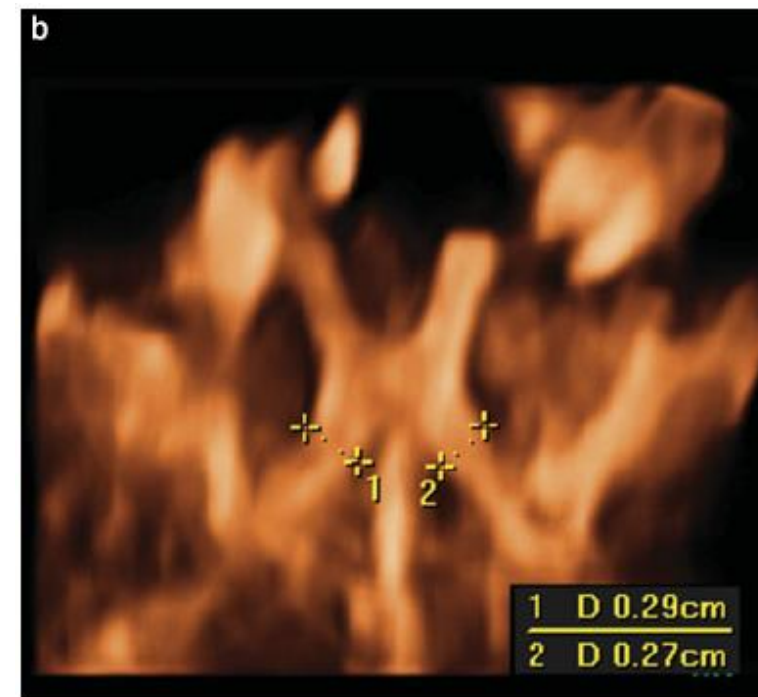
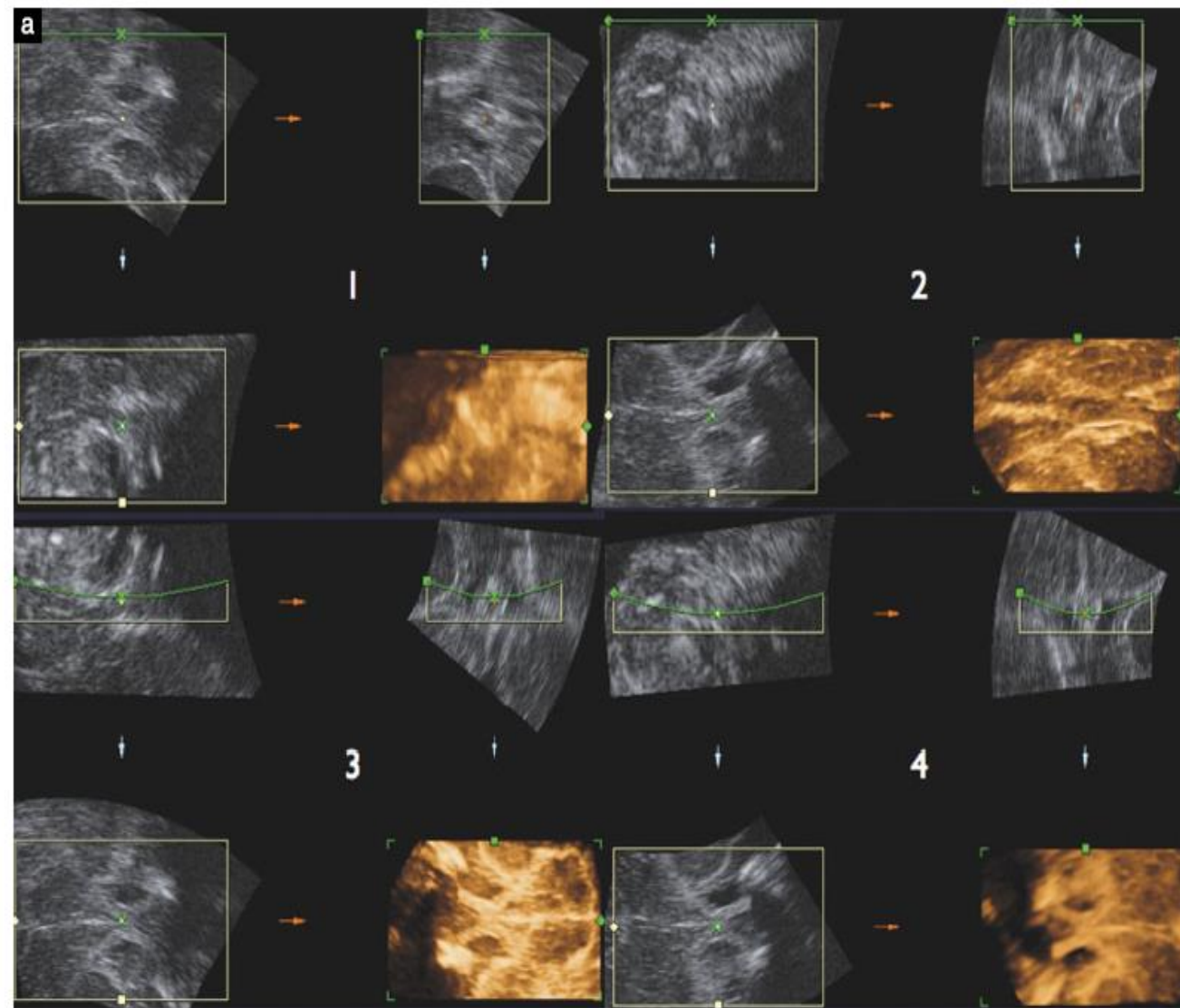
Semi-lobar holoprosencephaly

Bất thường

Role of three-dimensional ultrasound measurement of the optic tract in fetuses with agenesis of the septum pellucidum

J. P. BAULT*†‡, L. J. SALOMON†‡, L. GUIBAUD§ and R. ACHIRON¶

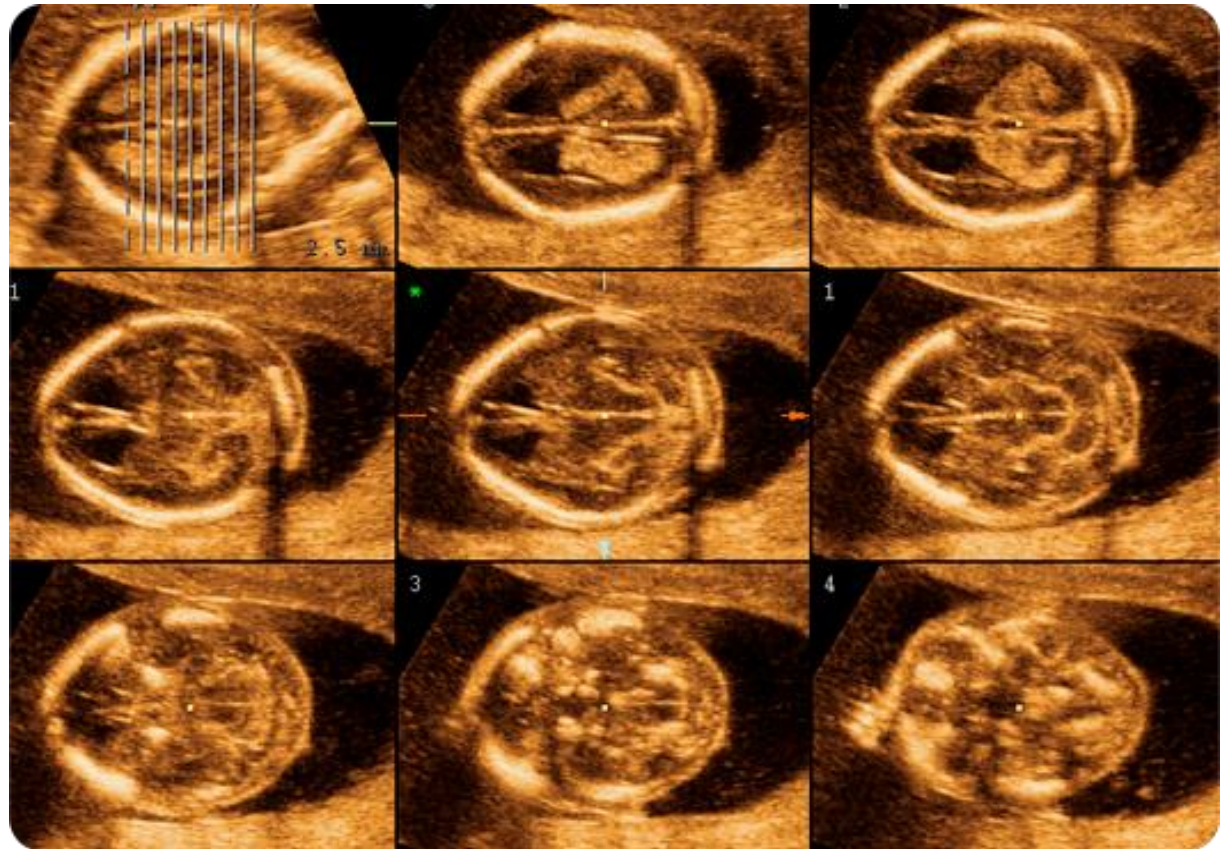
*Centre d'Échographies Ambroise Paré Les Mureaux, CHI Poissy Saint-Germain, Yvelines, France; †Maternité Necker-Enfants Malades, APHP, Université Paris Descartes, Paris, France; ‡SFAPE: Société Pour l'Amélioration des Pratiques en Echographie, Paris, France; §Imagerie Pédiatrique et Fœtale, Hôpital Femme Mère Enfant, Université Claude Bernard Lyon I, Lyon Bron, France; ¶Department of Obstetrics and Gynecology, Sheba Medical Center, Sackler School of Medicine, Tel Aviv University, Tel Aviv, Israel

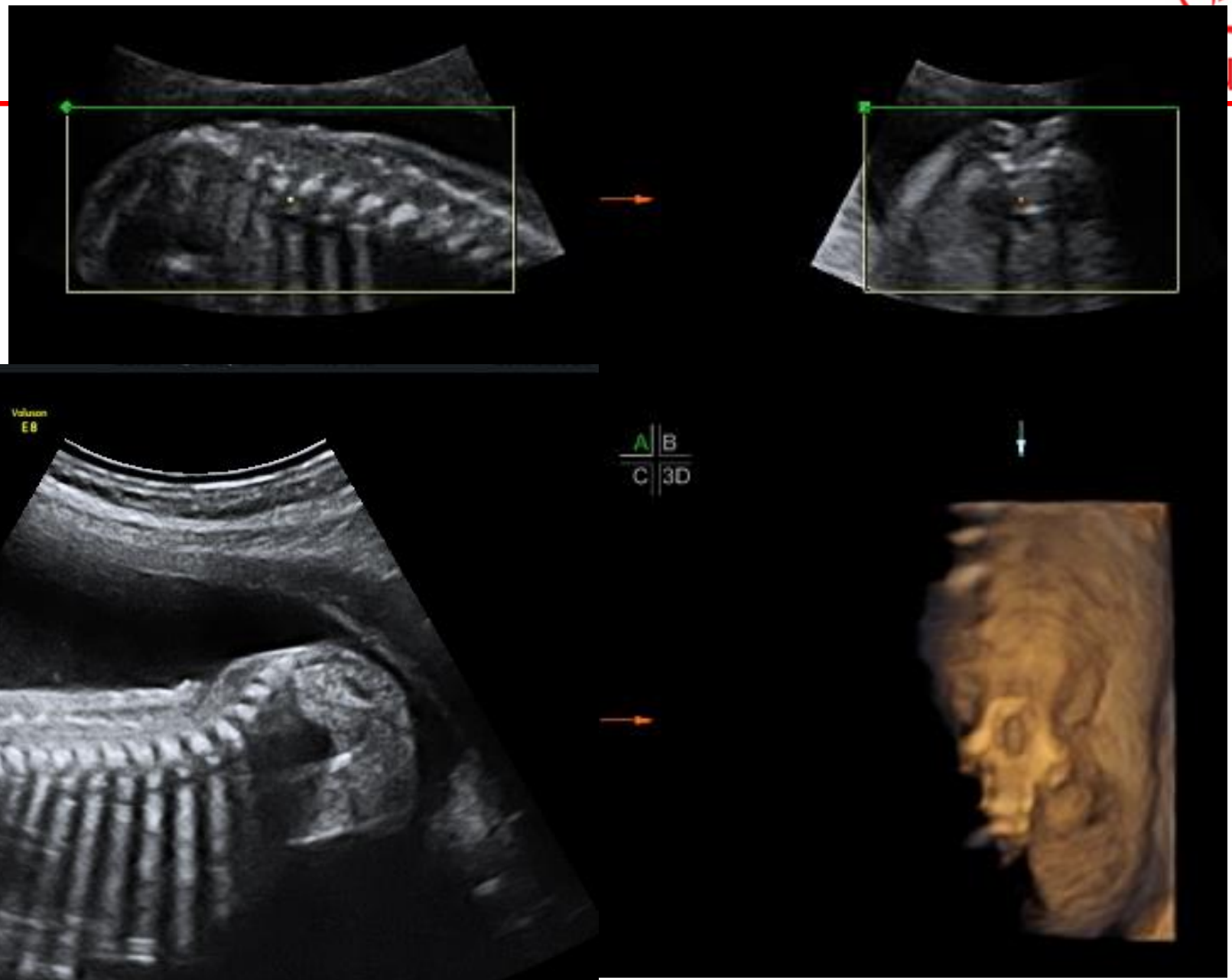


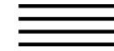
Bất thường hố sau: Bất thường hình dạng tiểu não



Dấu hiệu “trái chuối”

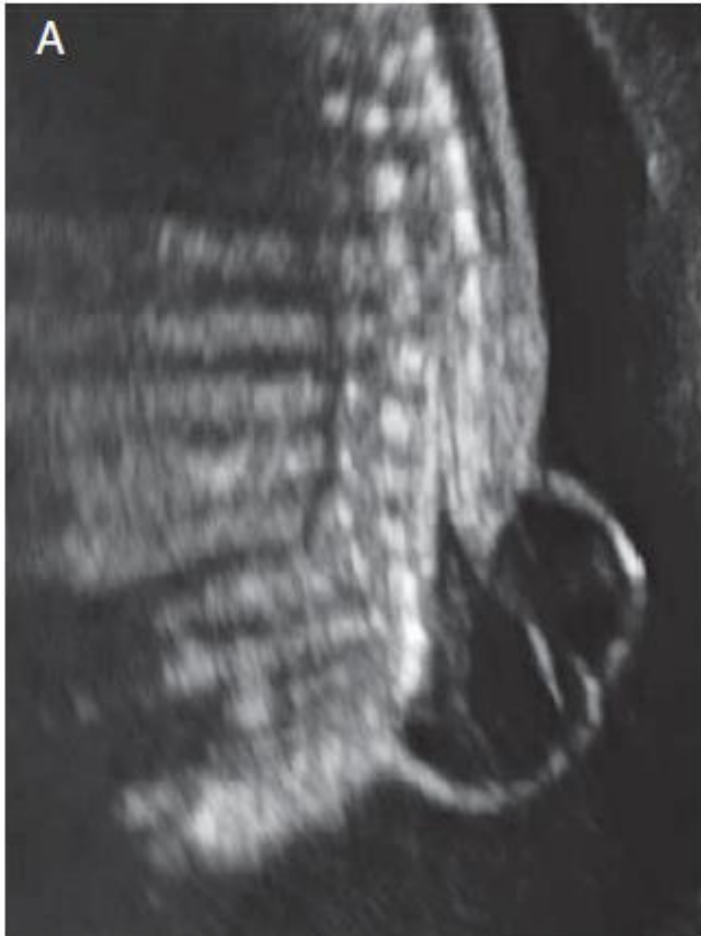




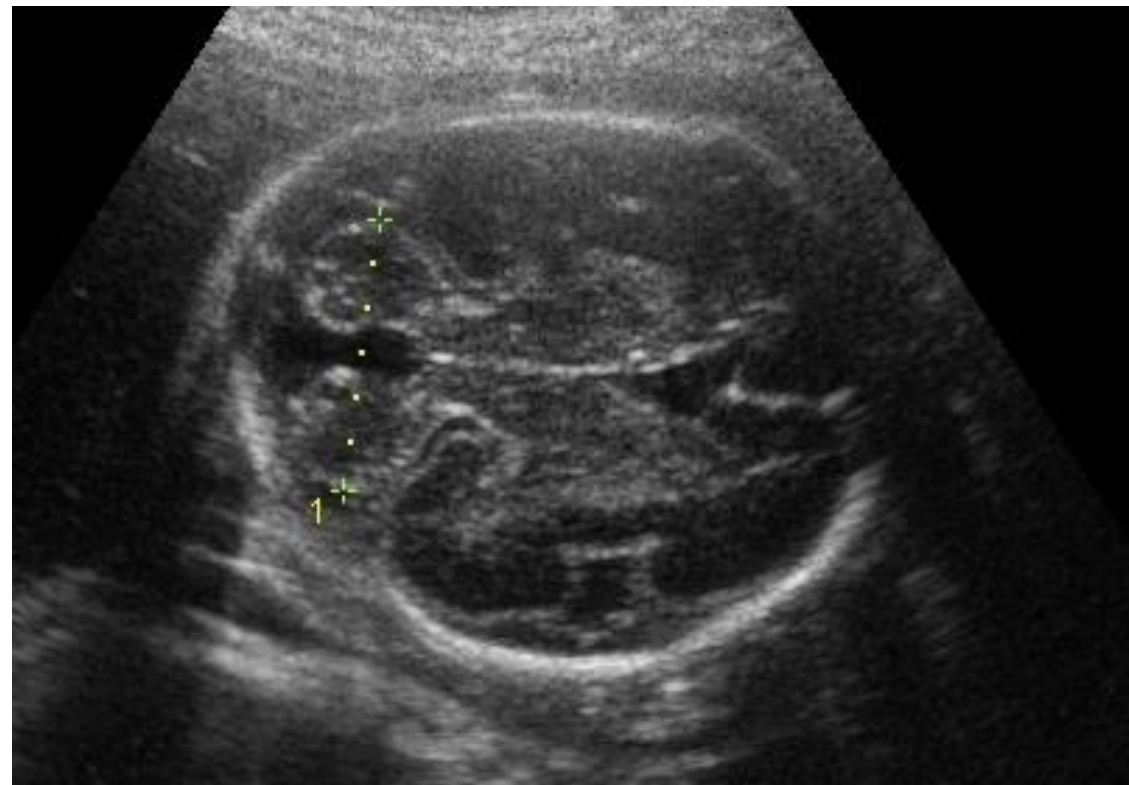
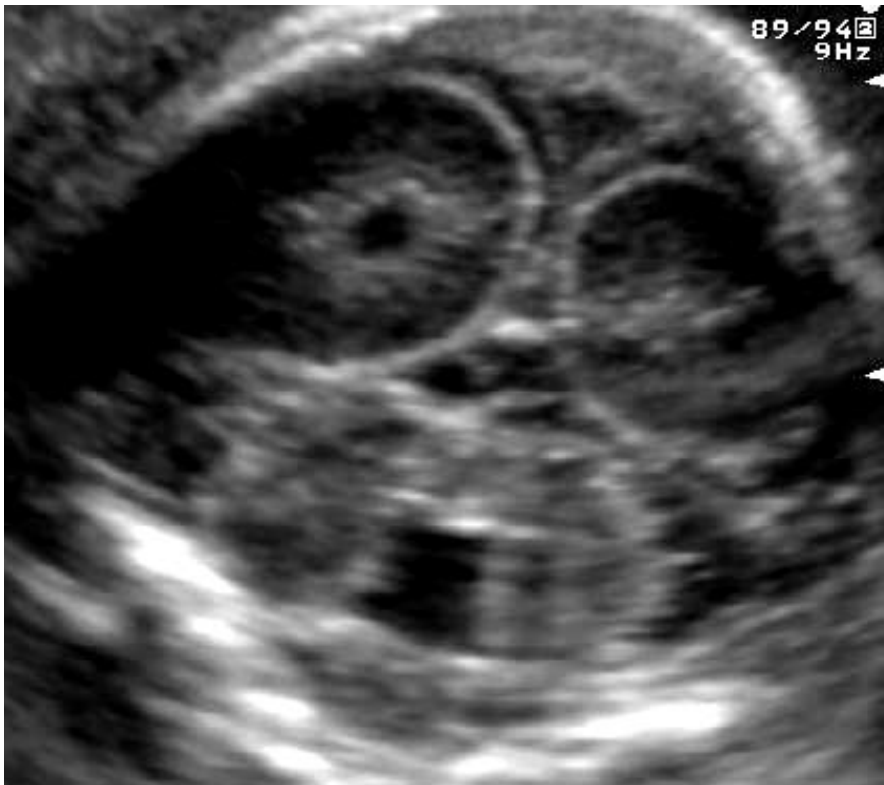


Fetal CNS Scanning—Less of a Headache Than You Think

ANA MONTEAGUDO, MD and
ILAN E. TIMOR-TRITSCH, MD

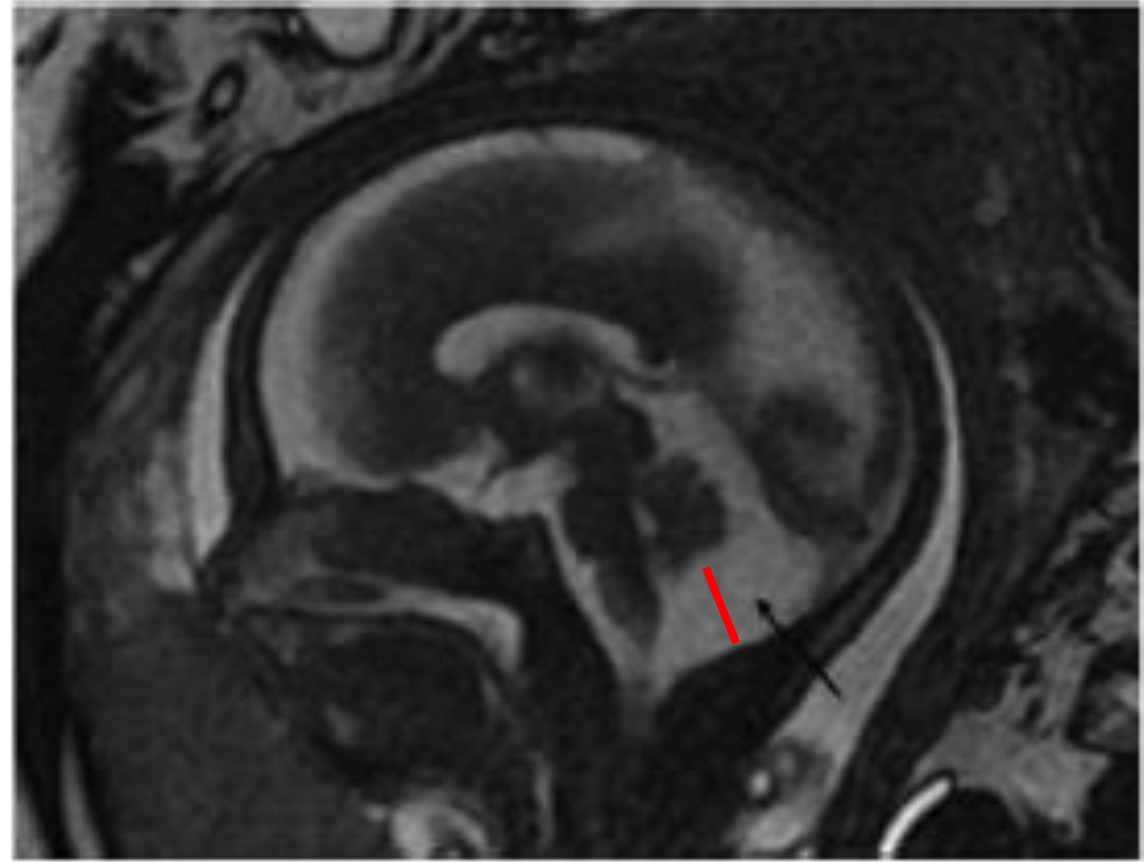
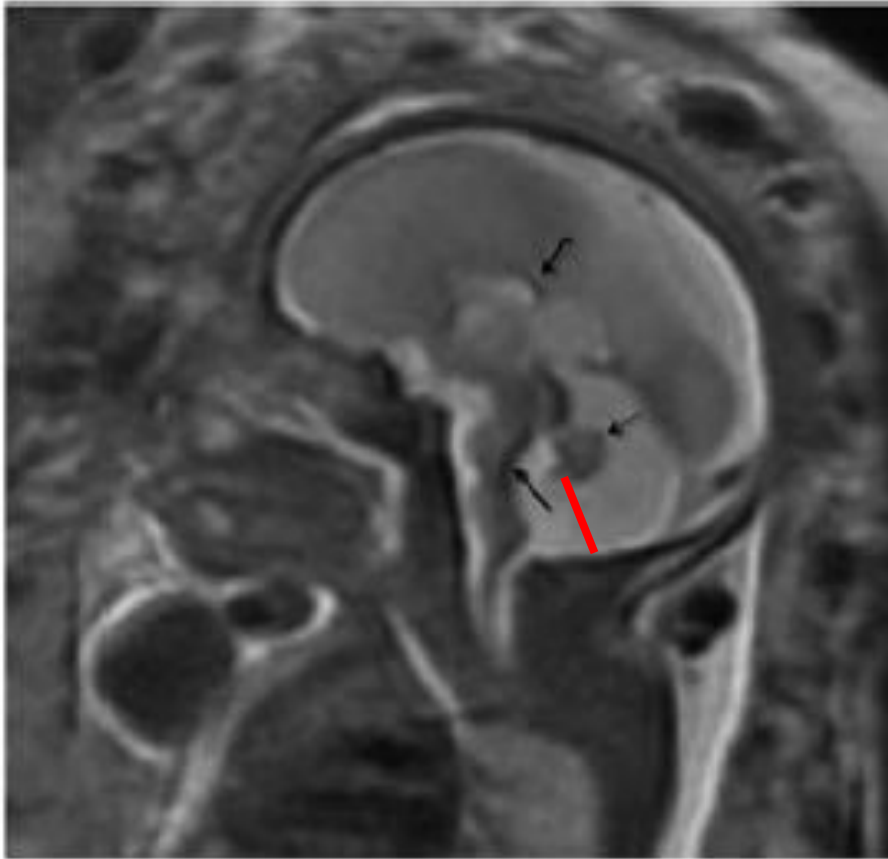


Bất thường hồ sau: Dẫn hồ sau / Bất thường thùy nhộng / Kích thước





Bất thường



Bất thường thùy nhộng

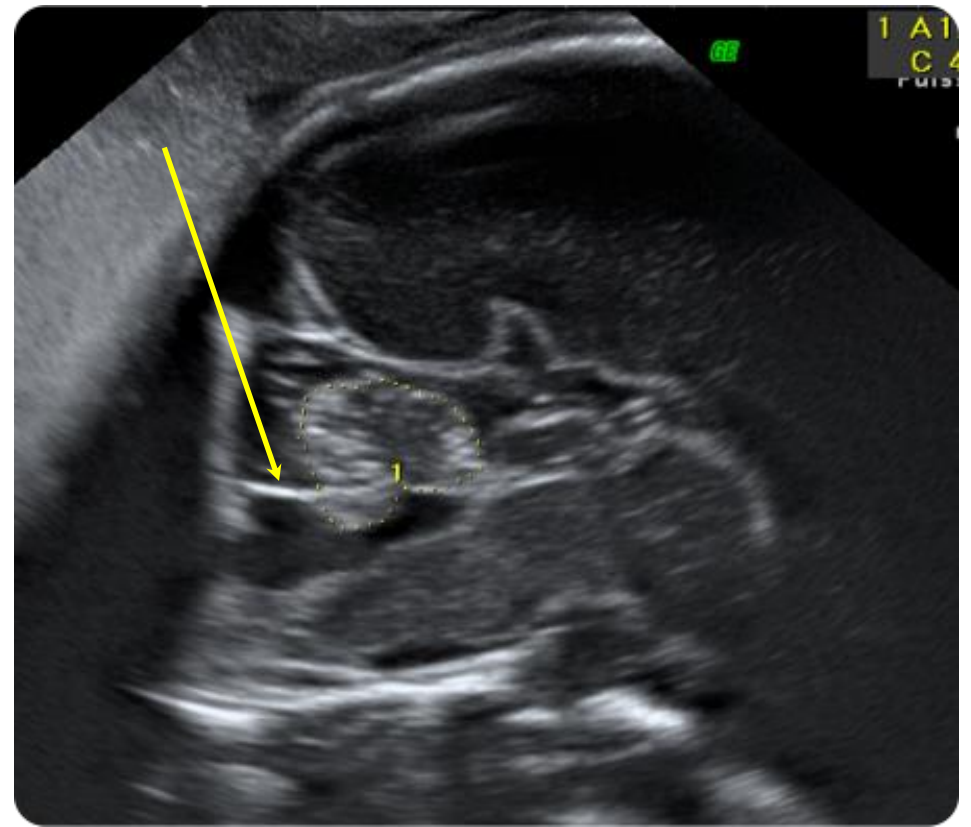
Thùy nhộng

Bất thường hố sau: Dẫn hố sau > Những bệnh cảnh khác nhau

Posterior fossa anomalies diagnosed with fetal MRI: Associated anomalies and neurodevelopmental outcomes

Kyla J. Patek¹, Beth M. KlineFath^{2,3}, Robert J. Hopkin^{1,2}, Valentina V. Pilipenko¹, Timothy M. Crombleholme² and Christine G. Spaeth^{1,2*}
Prenatal Diagnosis 2012, **32**, 75–82

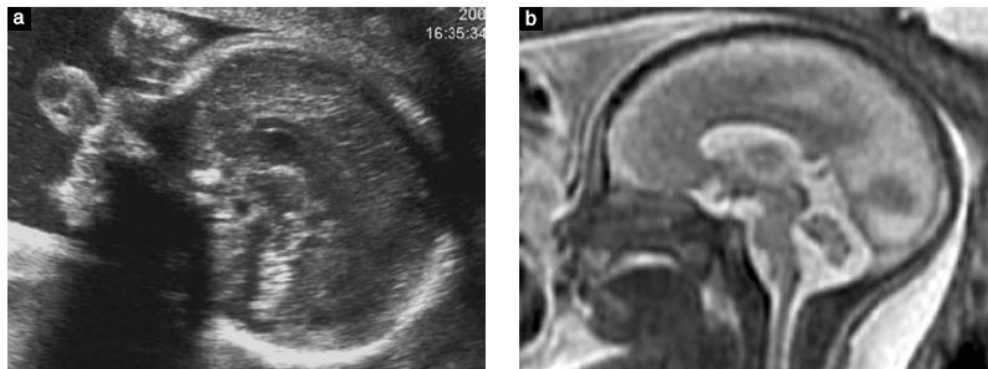
Bất thường hố sau: Dẫn hồ sau / Bất thường thùy nhộng



Opinion

Guibaud and des Portes

Plea for an anatomical approach to abnormalities of the posterior fossa in prenatal diagnosis



ly-Walker malformation in a patient referred for an 'increased fluid-filled space' in the posterior fossa. (a) Axial ultrasound at 25 gestational weeks showing a communication between the fourth ventricle and the cisterna magna suggestive of vermian agenesis. (b) Median sagittal ultrasound image showing enlargement of the posterior fossa with ascent of the cerebellar tentorium associated with vermian agenesis and cystic dilatation of the fourth ventricle. (c) Fetal magnetic resonance imaging confirmed the sonographic data.

Figure 6 Partial vermian agenesis in a patient referred for an 'increased fluid-filled space' and 'abnormal cerebellar anatomy' associated with severe cardiopathy. Median sagittal ultrasound (a) and magnetic resonance (b) images at 25 gestational weeks, showing partial vermian agenesis with a wide communication between the fourth ventricle and the cisterna magna through the defective part of the vermis, with no enlargement of the posterior fossa. Note the normal bulge of the pons.

• Bất thường hố sau:

- Hố sau (gia tăng lượng dịch khoang ở hố sau)
- Hợp lưu sau
- Thùy nhộng
- Kích thước

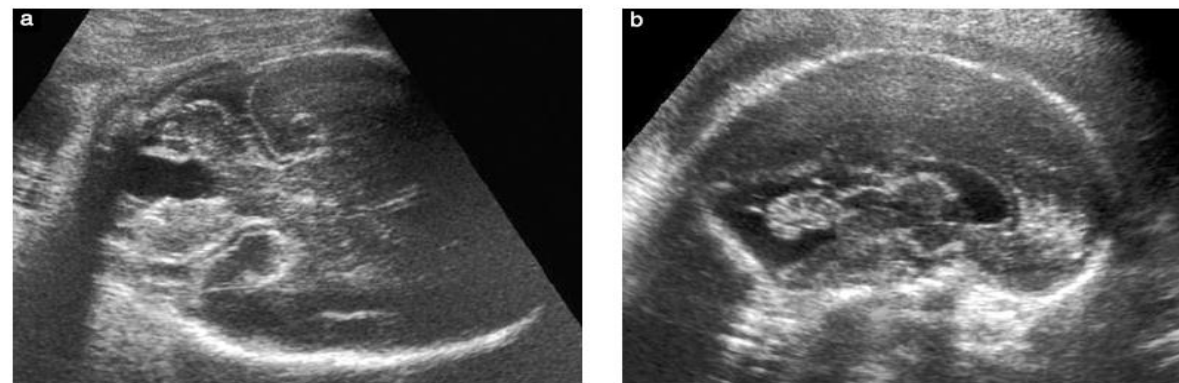
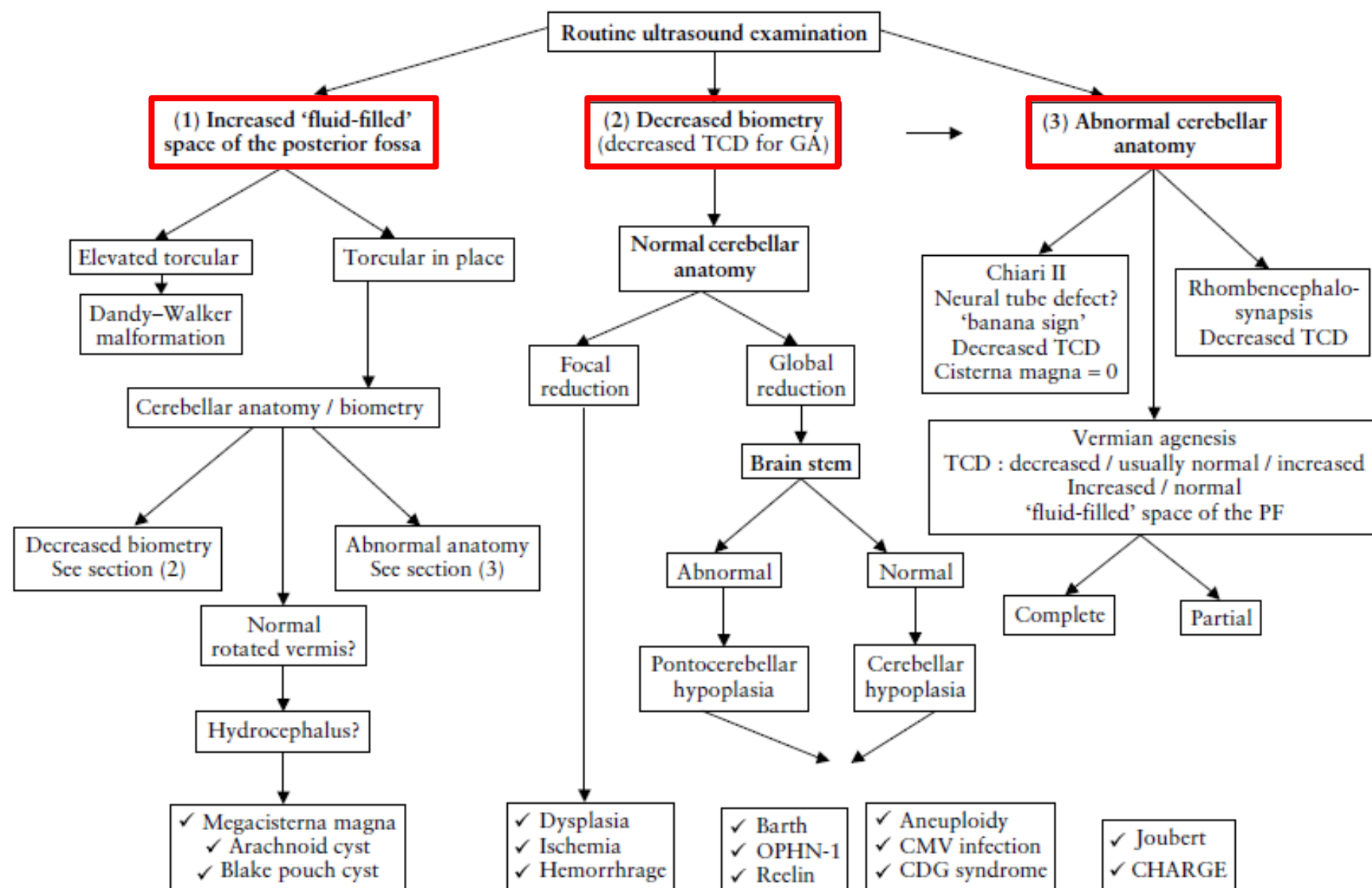


Figure 3 Rotation of a normal vermis in a patient referred for an 'increased fluid-filled space' in the posterior fossa and suspicion of 'abnormal cerebellar anatomy'. (a) Axial oblique ultrasound image at 26 gestational weeks, angled steeply towards the coronal plane, which led to an erroneous diagnosis of vermian agenesis. (b) Median sagittal ultrasound image showing simple rotation of a complete vermis leading to a posteroinferior opening of the fourth ventricle with no enlargement of the posterior fossa.

Opinion

Guibaud and des Portes

Plea for an anatomical approach to abnormalities of the posterior fossa in prenatal diagnosis





Prenatal diagnosis and outcome of fetal posterior fossa fluid collections

G. GANDOLFI COLLEONI*, E. CONTRO*, A. CARLETTI*, T. GHI*, G. CAMPOBASSO†, G. REMBOUSKOS†, G. VOLPE‡, G. PILU* and P. VOLPE†

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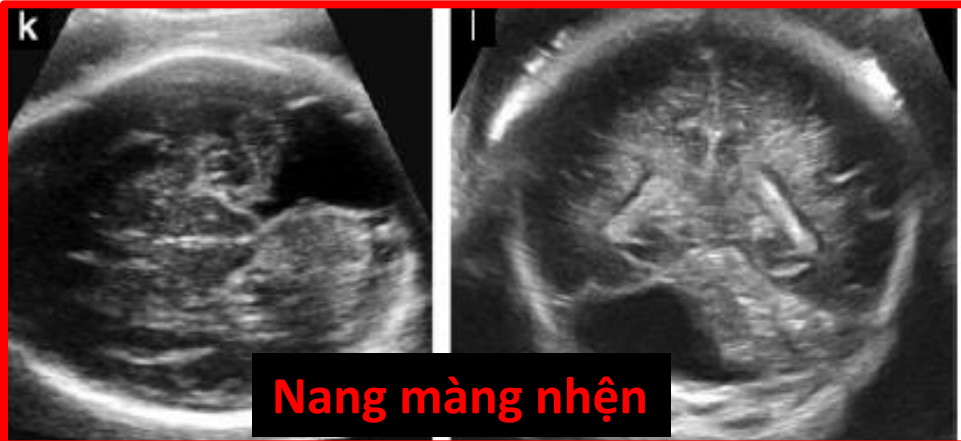
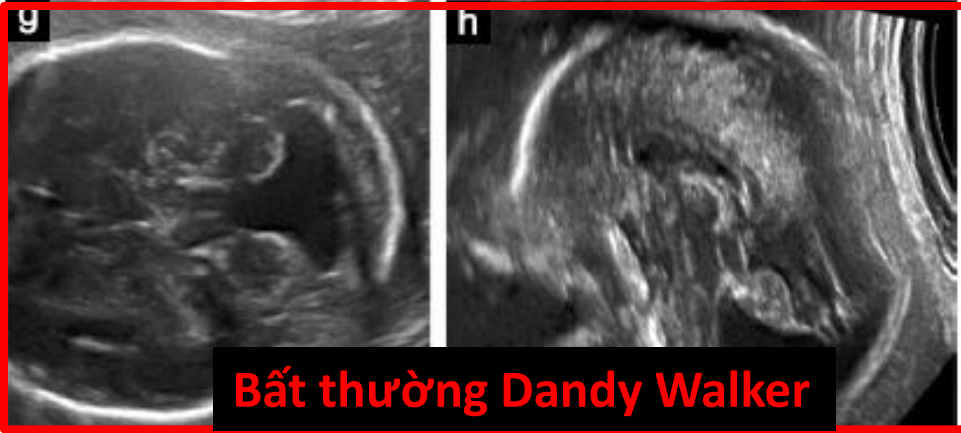
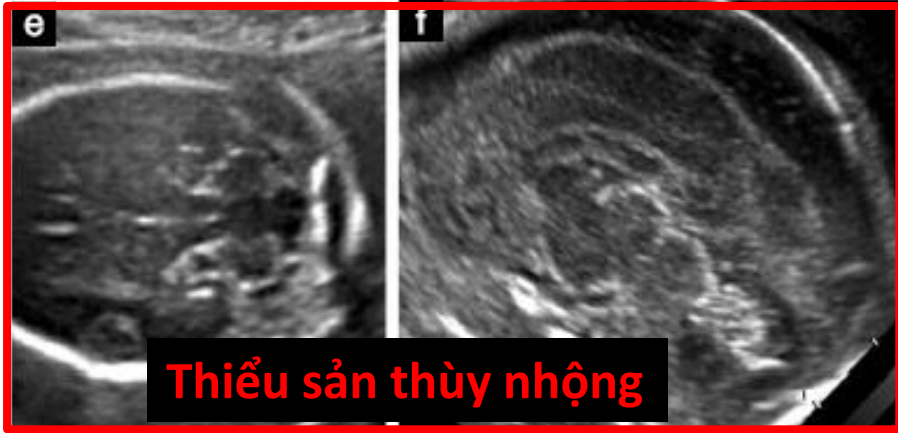
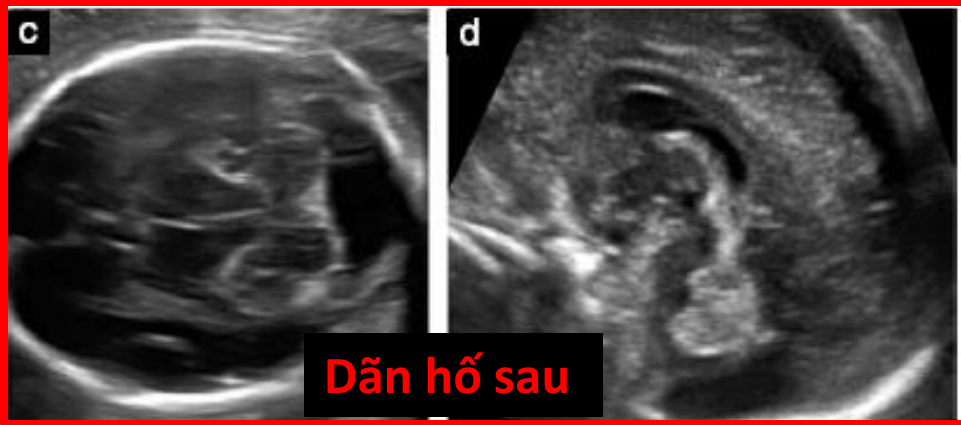
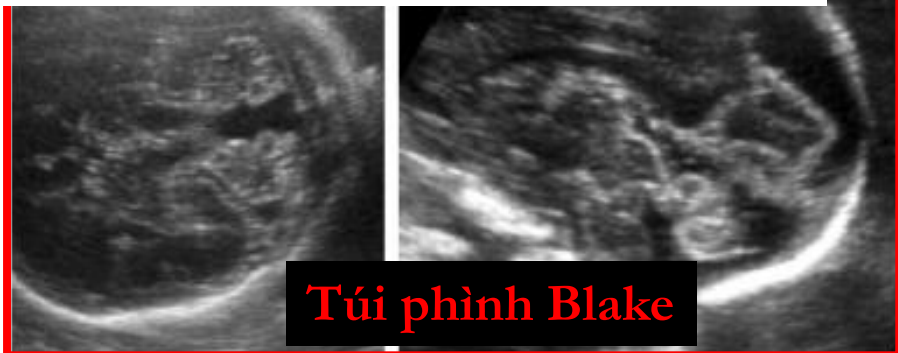
<i>Findings</i>	<i>Diagnosis</i>
Upward rotation of an intact vermis with normal torcular	Blake's pouch cyst
Cisterna magna depth > 10 mm with intact and normally positioned cerebellum	Megacisterna magna
Upward rotation of the vermis (normal or hypoplastic) with elevated torcular	Dandy–Walker malformation
Hypoplastic vermis with normal torcular	Vermian hypoplasia
Large cisterna magna with small cerebellum	Cerebellar hypoplasia
Cyst with a mass effect resulting in distortion of the cerebellum	Posterior fossa arachnoid cyst



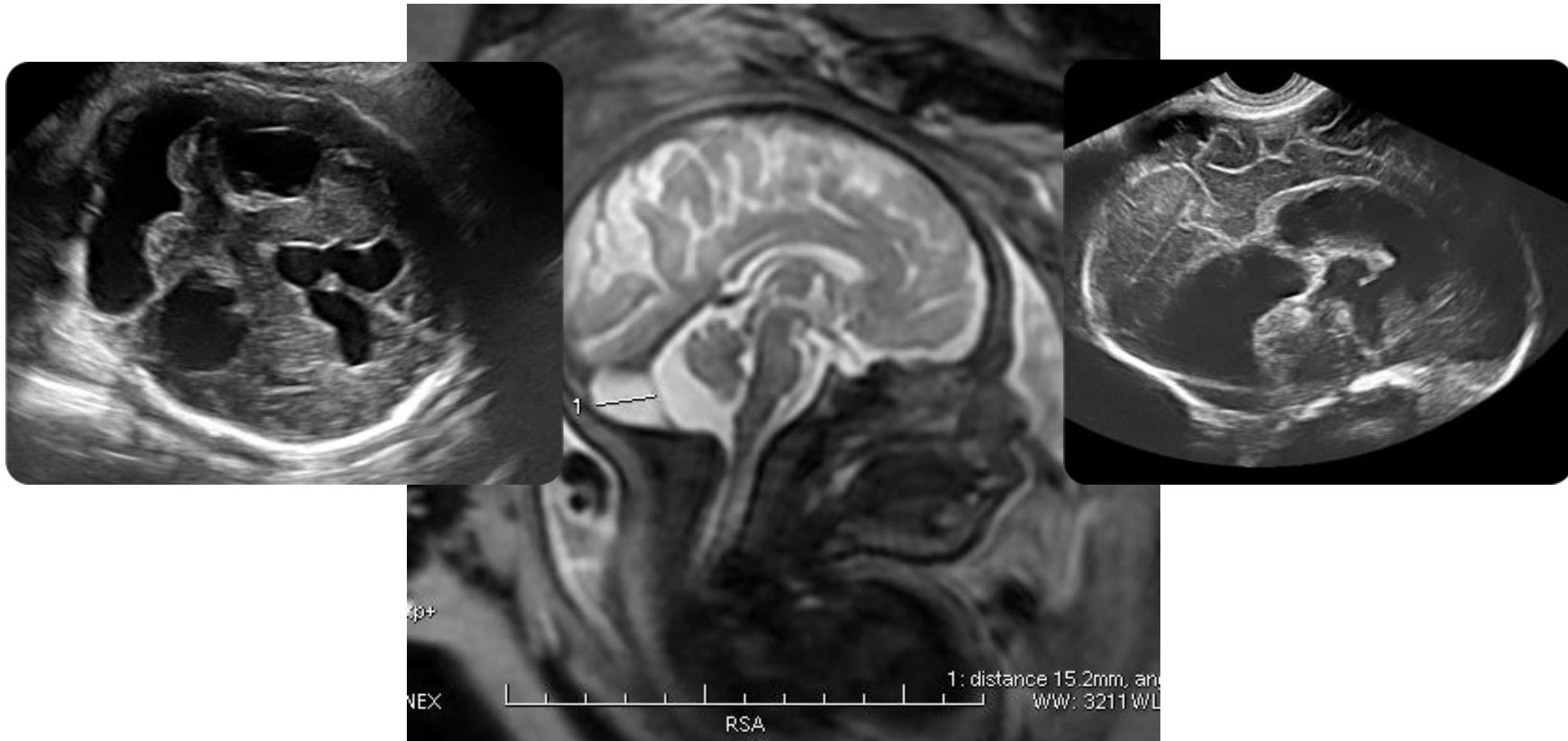
Prenatal diagnosis and outcome of fetal posterior fossa fluid collections

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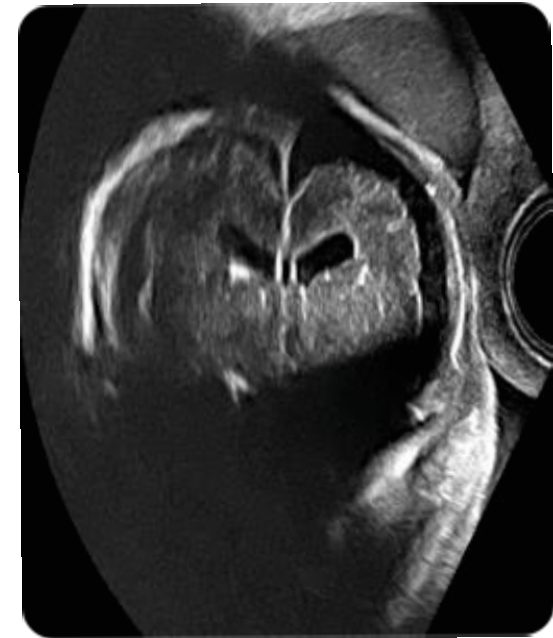
Nang màng nhện



Vi đa rãnh não

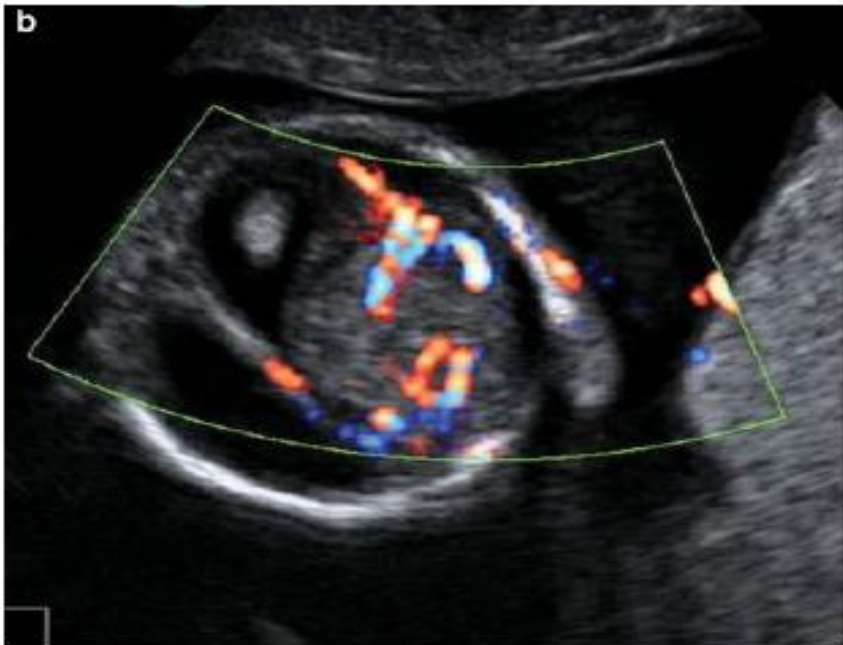


29 sa



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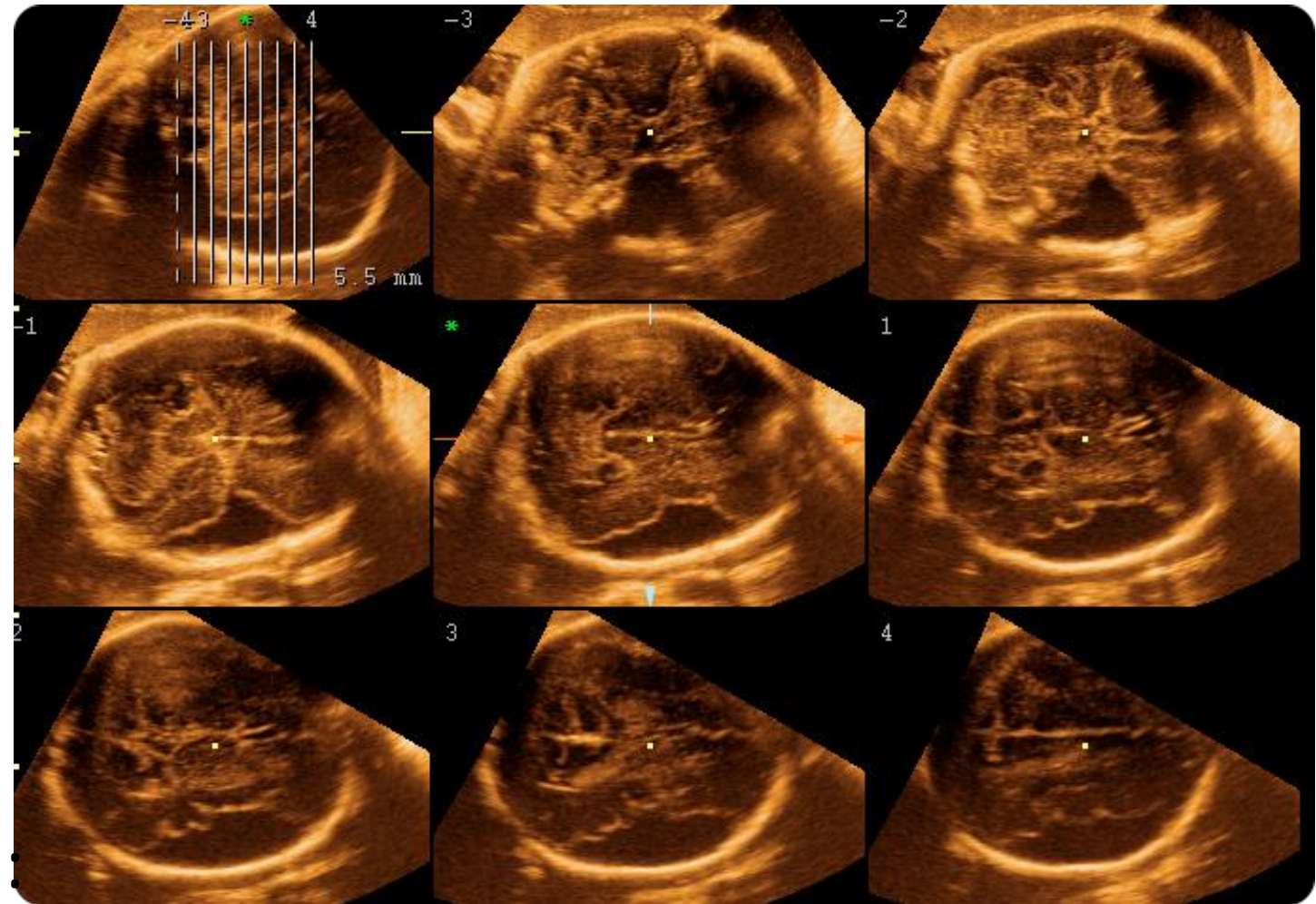
Bất thường



Teratomas

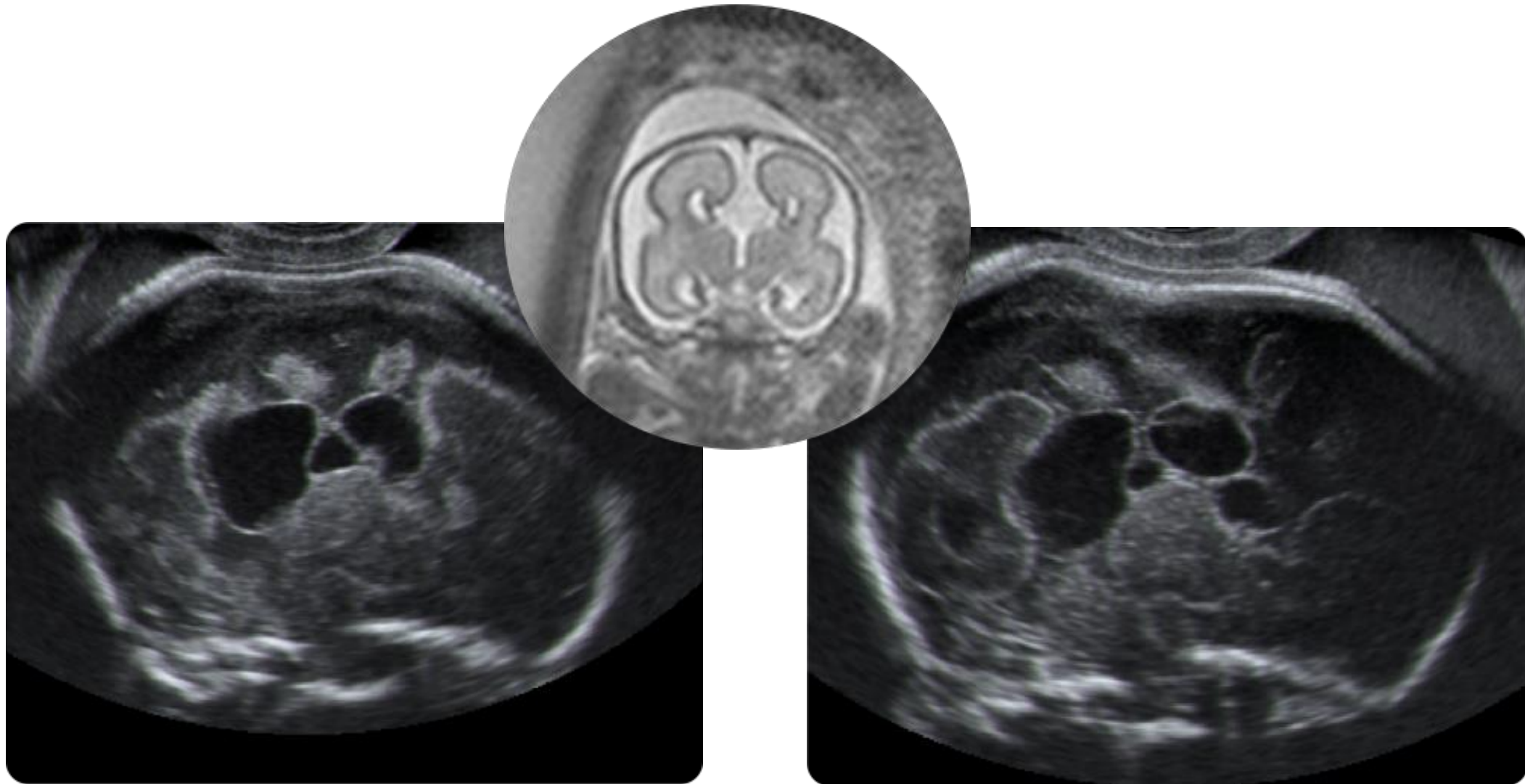


Tubers
(Bourneville)



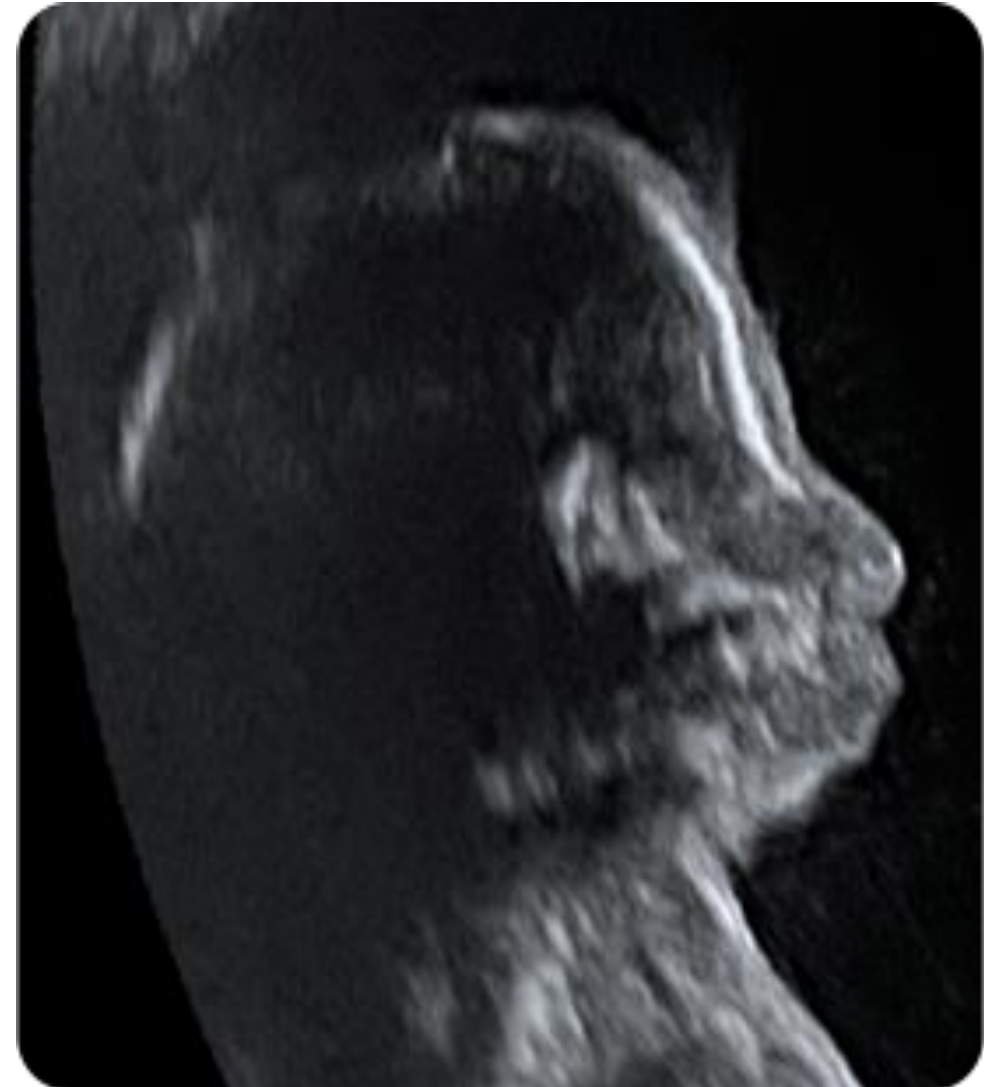
- Nang màng nhện:
- Không có phổ Doppler
 - Bất thường đi kèm?

Nang màng nhện + Bất sản thể chai

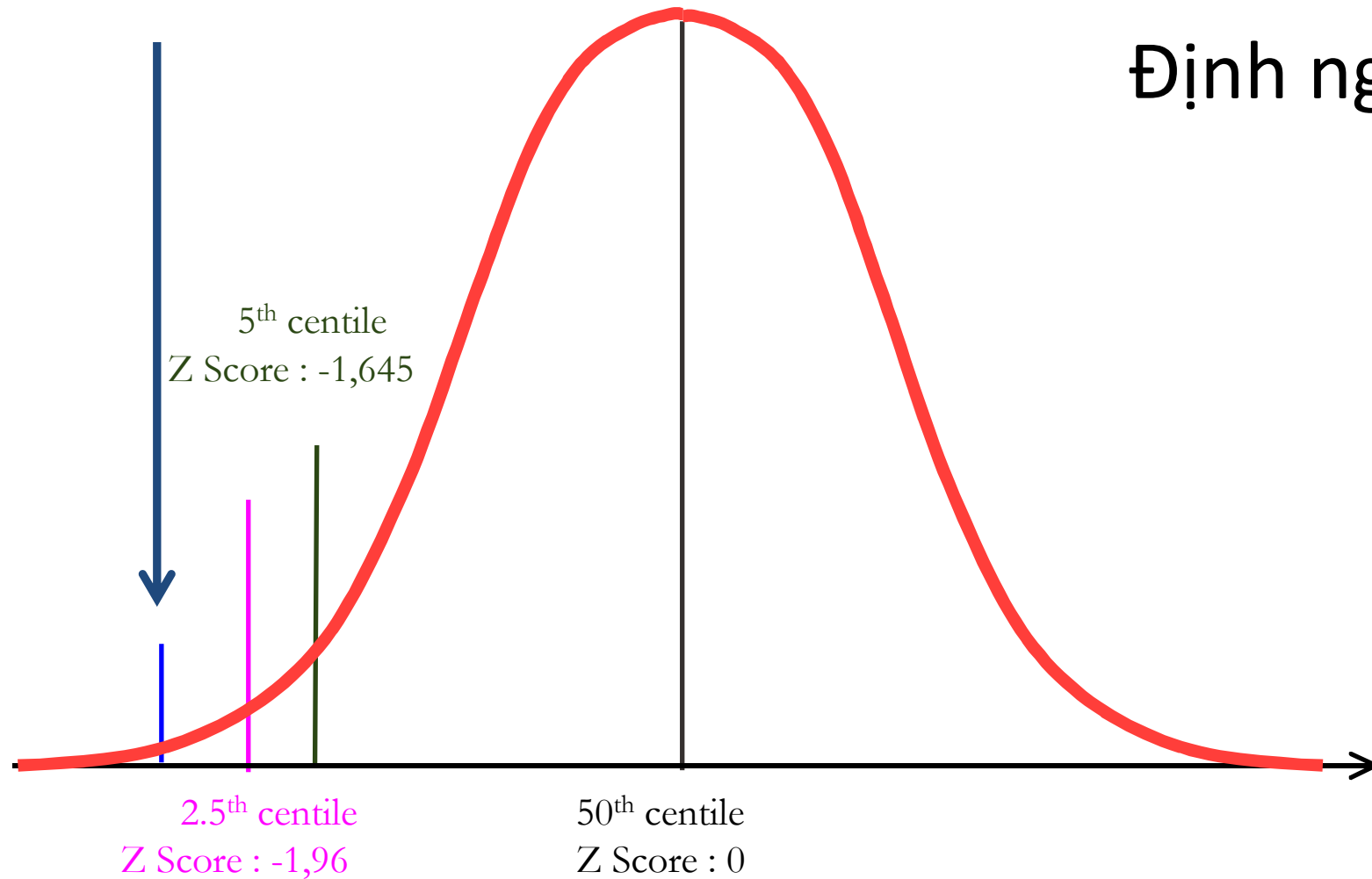


Bất thường kích thước:

- Biết chính xác tuổi thai
- Đo chính xác
- Tăng trưởng thai
- HC / AC
- Nhiễm trùng? Zika ++??
- Lệch bội , 4p-, 5p-
- Tiền căn gia đình



Định nghĩa



Microcephaly : -3 SD , Z Score : - 3

Ultrasound Obstet Gynecol 2016; 0: 000–000

Published online in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/uog.15896

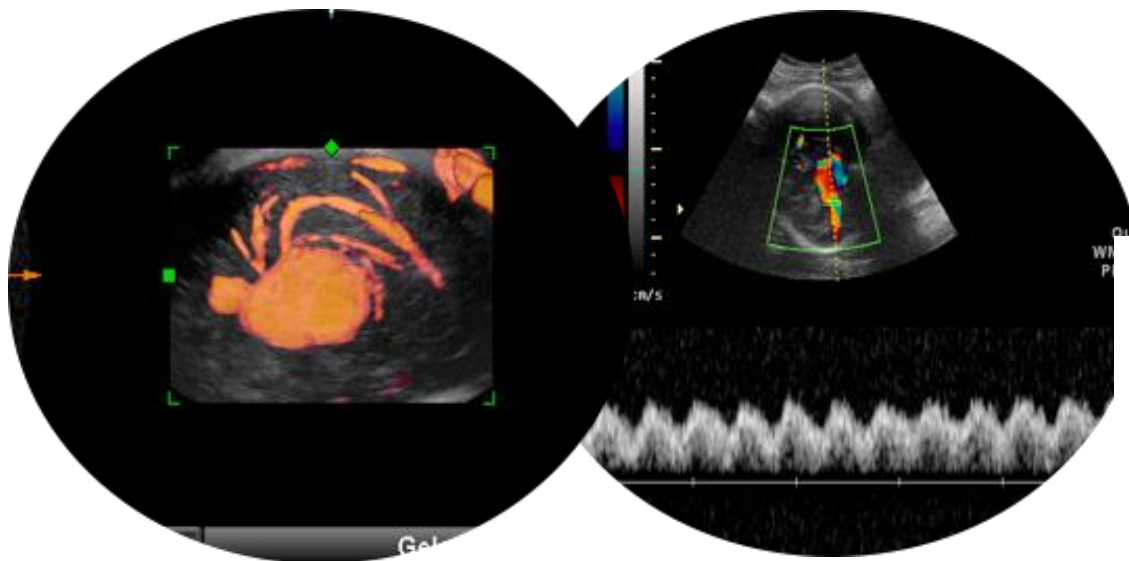
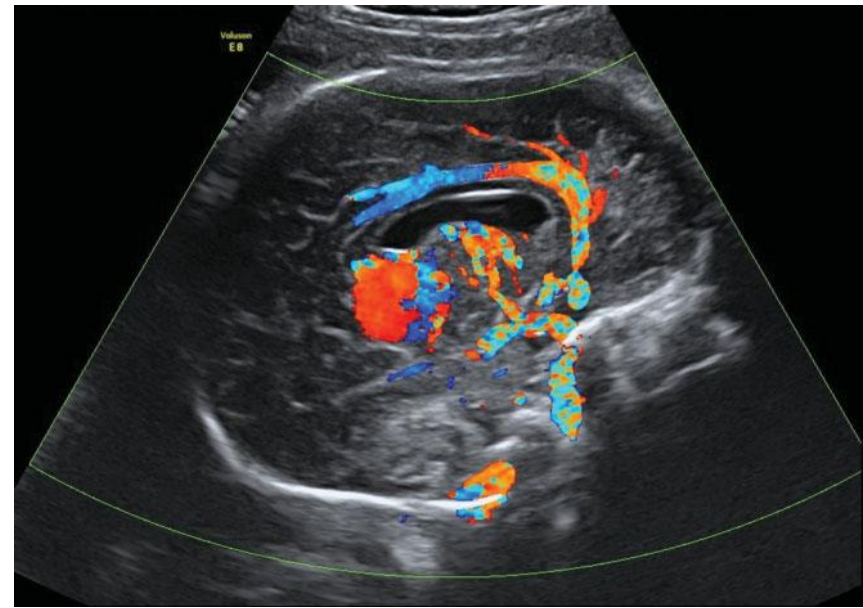
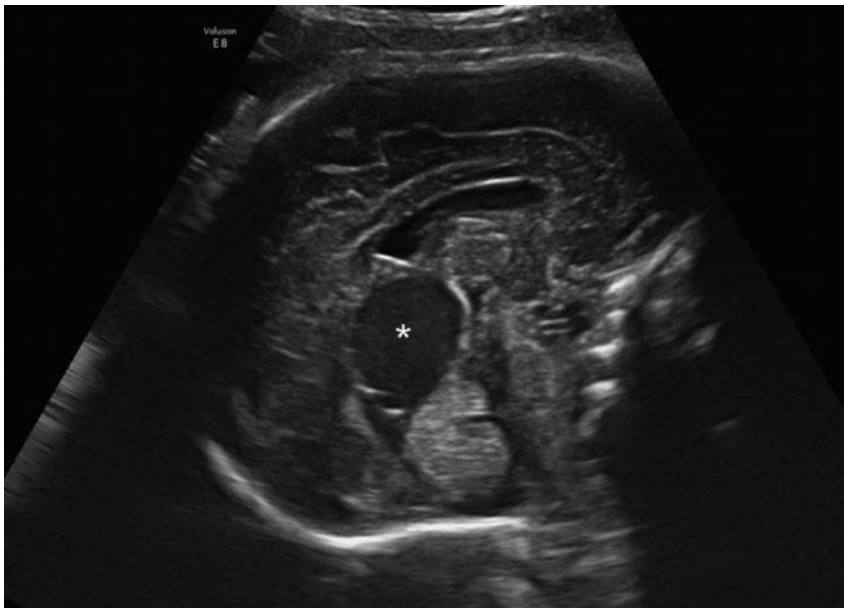
UOG15896



INTERIM GUIDANCE

ISUOG Interim Guidance on ultrasound for Zika virus infection in pregnancy: information for healthcare professionals





Phình tĩnh mạch Gallen:

- Bất thường hệ thần kinh TW đi kèm?
- Rối loạn chức năng tim ?

Ultrasound Obstet Gynecol 2012; 0: 000-000
Published online in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/uog.11188

UOG11188



The hidden mortality of vein of Galen aneurysmal malformation: retrospective study and review of the literature

B. DELOISON*, G. E. CHALOUHI*, P. SONIGO†, M. ZERAH‡, A. E. MILLISHER†, Y. DUMEZ*, F. BRUNELLE†, Y. VILLE* and L. J. SALOMON*

Fetal CNS Scanning—Less of a Headache Than You Think

ANA MONTEAGUDO, MD and
ILAN E. TIMOR-TRITSCH, MD

From the Department of Obstetrics and Gynecology, Brigham Young University, Salt Lake City, Utah.

- Đánh giá hệ thần kinh nên được đánh giá bởi các nhà siêu âm kinh nghiệm, thường là các nhà siêu âm tại tuyến chuyên sâu.
- Đánh giá hệ thần kinh thai nhi phải dựa trên nhiều mặt cắt phối hợp
- Mặc dù nhiều nơi cố gắng đưa MRI vào như là Test chẩn đoán đầu tay, nhưng trong tay các nhà siêu âm kinh nghiệm, vẫn có thể đưa ra câu trả lời chẩn đoán xác định và chi tiết, dù có thể không là tất cả. Vì thế MRI đánh giá não bộ thai nhi chỉ nên chỉ định bổ sung sau khi đã được siêu âm hội chẩn bởi một nhà siêu âm kinh nghiệm.