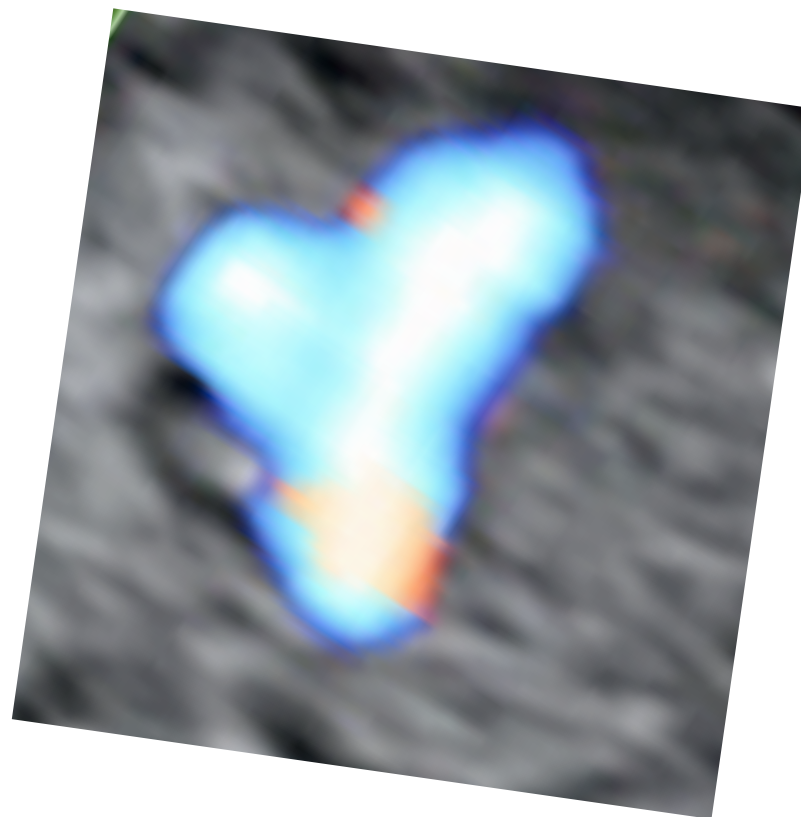
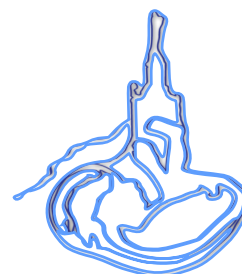


L'échocardiographie au 1er trimestre?

E.Quarello



Marseille 2011



Pour qui ?

- Famille à risque élevée de C_{ardiopathie} C_{ongénitale}
(risque: 2-3%)
- Hyperclarté de nuque
- Malformation(s)
- Fuite tricuspide
- Onde A (-) au niveau du canal d'Arantius

Anatomical and echocardiographic correlates of normal cardiac morphology in the late first trimester fetus

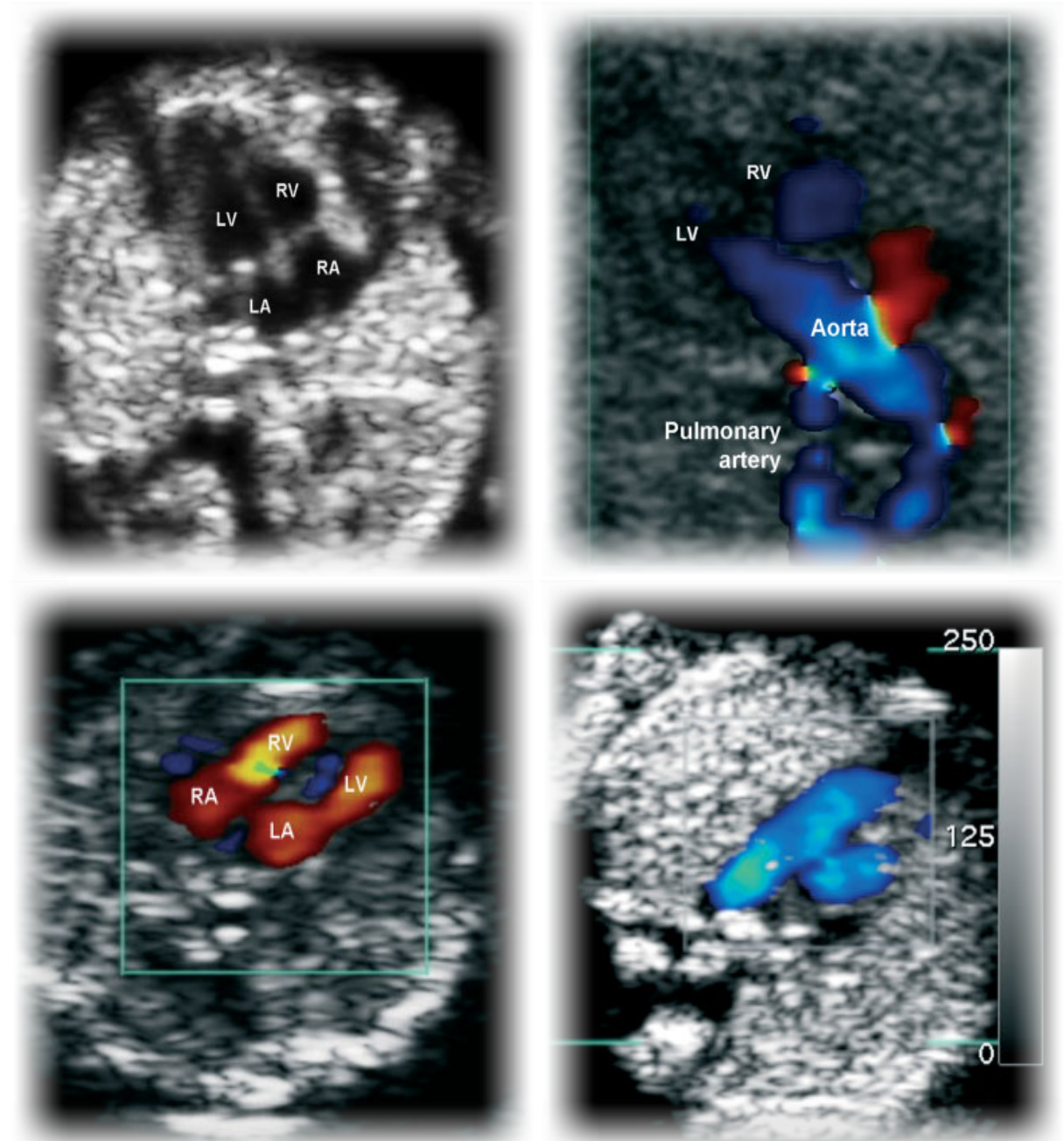
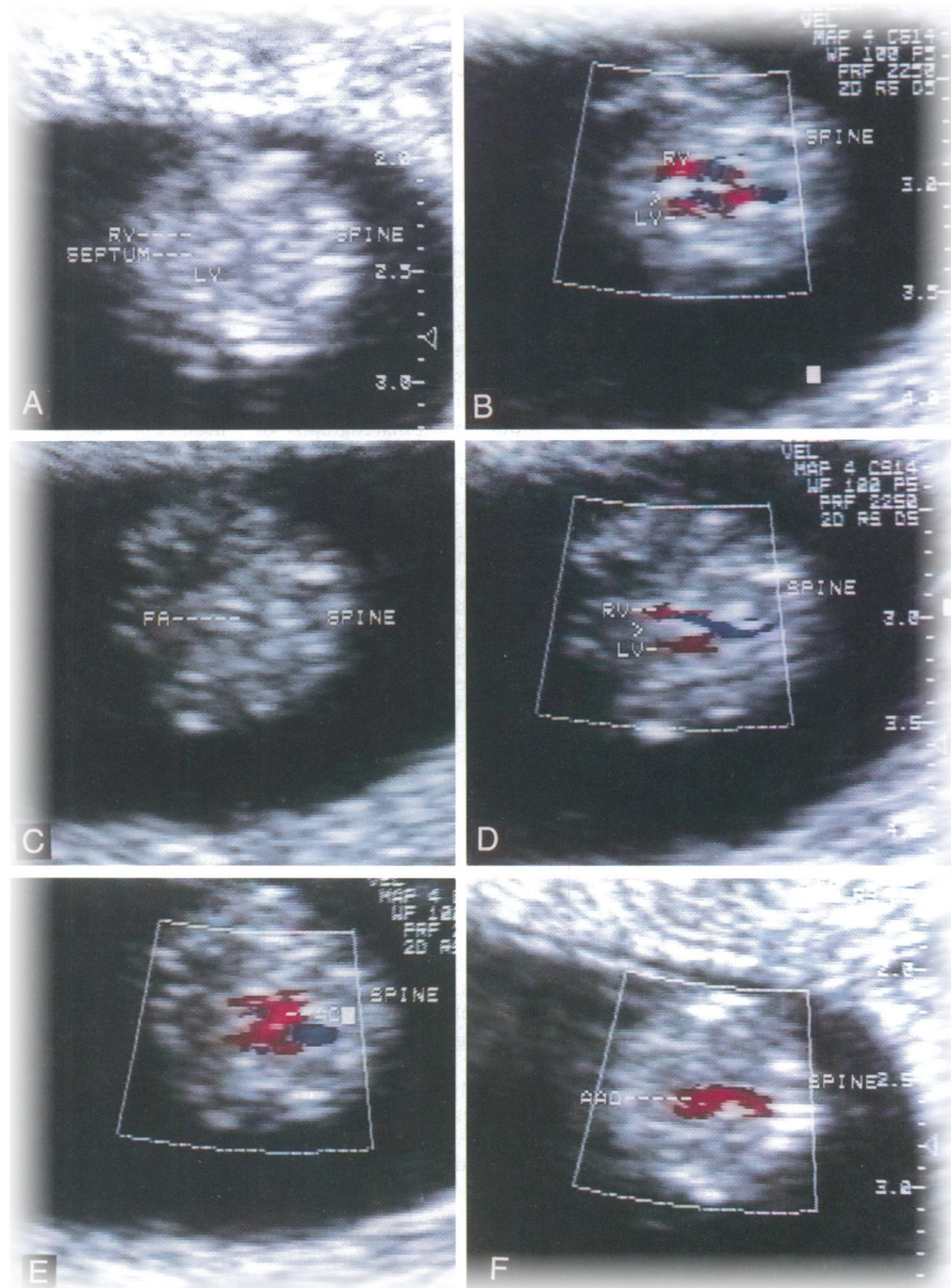
Lindsey D Allan, Rosalba Santos, Tomas Pexieder

Heart 1997;77:68–72

Fetal echocardiography at 11–13 weeks by transabdominal high-frequency ultrasound

N. PERSICO*†, J. MORATALLA*, C. M. LOMBARDI‡, V. ZIDERE*, L. ALLAN* and K. H. NICOLAIDES*§

Ultrasound Obstet Gynecol 2011; 37: 296–301



How successful is fetal echocardiographic examination in the first trimester of pregnancy?

M. C. HAAK *, J. W. R. TWISK† and J. M. G. VAN VUGT*

Ultrasound Obstet Gynecol 2002; 20: 9–13

— — — — —

<i>Gestational age (weeks)</i>	<i>Success rate (%) *</i>
11+0 to 11+6	20
12+0 to 12+6	60
13+0 to 13+6	92

Cardiac malformations in first-trimester fetuses with increased nuchal translucency: ultrasound diagnosis and postmortem morphology

M. C. HAAK*, M. M. BARTELINGS†, A. C. GITTENBERGER-DE GROOT† and J. M. G. VAN VUGT*

Ultrasound Obstet Gynecol 2002; 20: 14–21

	Detailed agreement (n (%))	General agreement (n (%))
Sensitivity	7/13 (54)	7/8 (88)
Specificity	26/27 (96)	29/30 (97)
False-positive rate	1/8 (13)	1/8 (13)
False-negative rate	6/32 (19)	1/30 (3)
Positive predictive value	7/8 (88)	7/8 (88)
Negative predictive value	26/32 (81)	29/30 (97)

45 embryos CN ≥ 95e p
10 malformations cardiaques

A systematic review of the accuracy of first-trimester ultrasound examination for detecting major congenital heart disease

S. V. RASIAH*, M. PUBLICOVER†, A. K. EWER*, K. S. KHAN‡, M. D. KILBY‡ and J. ZAMORA§

Ultrasound Obstet Gynecol 2006; **28**: 110–116

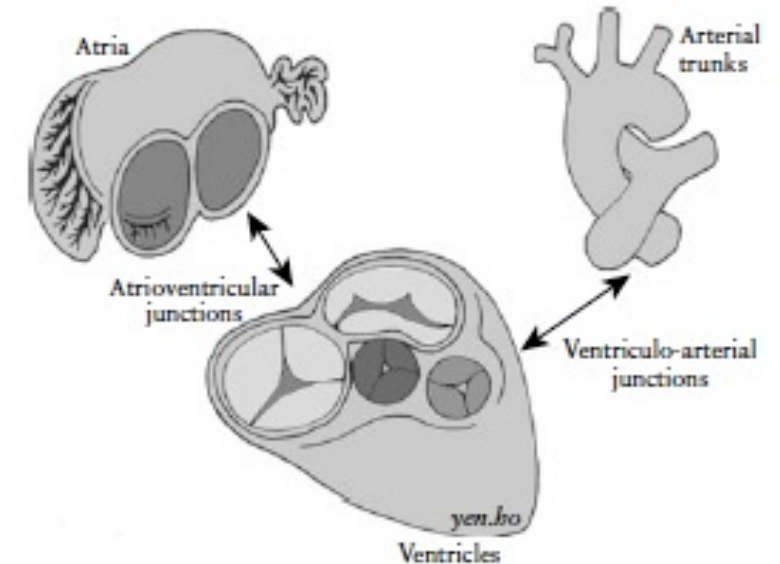
<i>Authors</i>	<i>Year of publication (study period)</i>	<i>Country</i>	<i>Study population</i>	<i>Gestational range scans done (weeks)</i>	<i>Number of fetuses < 14 weeks</i>	<i>Ultrasound approach</i>
Carvalho <i>et al.</i> ²⁷	2004 (1997–2002)	England	High-risk; increased NT	10–16	79	Transabdominal
Huggon <i>et al.</i> ²⁹	2003 (2000–2001)	England	High-risk; increased NT	11–14	262	Transabdominal
Galindo <i>et al.</i> ³⁴	2003 (1997–2003)	Spain	High-risk; increased NT	12–16	41	Transvaginal & transabdominal
Weiner <i>et al.</i> ³⁰	2002 (1995–1999)	Israel	High-risk	11–14	392	Transvaginal
Haak <i>et al.</i> ²⁸	2002	Netherlands	High-risk; increased NT	11–14	38	Transvaginal
Comas <i>et al.</i> ³³	2002 (1999–2001)	Spain	High-risk	12–17	117	Transvaginal & transabdominal
Zosmer <i>et al.</i> ³¹	1999 (1997–1998)	England	High-risk; increased NT	13–16	17	Transabdominal
Carvalho <i>et al.</i> ¹⁷	1998 (1995–1997)	England	High-risk; increased NT	12 to 13 + 6	11	Transabdominal
Achiron <i>et al.</i> ³²	1994 (1991–1993)	Israel	Unselected	13–15	201	Transvaginal
Gembruch <i>et al.</i> ¹⁴	1993 (1988–1992)	Germany	Unselected	11–16	85	Transvaginal

Sensibilité globale : 85% (IC 95%, 78-90%)

Spécificité globale : 99% (IC 95%, 98-100%)

Que ~~peut-on~~ doit on voir ?

- ☑ Situs
- ☑ Connections atrio-ventriculaires
- ☑ Connections ventriculo-artérielles
- ☑ Identification des cavités cardiaques et leur symétrie
- ☑ Croisement des gros vaisseaux
- ☑ Evaluation du flux: valves, cavités et gros vaisseaux



Sequential segmental analysis in complex fetal cardiac abnormalities: a logical approach to diagnosis

J. S. CARVALHO^{*,†¶}, S. Y. HO^{†§} and E. A. SHINEBOURNE[‡]

Ultrasound Obstet Gynecol 2005; 26: 105–111

Echocardiographie au 1er trimestre

