

Pregnancy outcomes in women with Tetralogy of Fallot

Data from the ESC Registry Of Pregnancy And Cardiac
disease (ROPAC)

L. Baris, M.R. Johnson, R. Hall, J.W. Roos-Hesselink

No disclosures

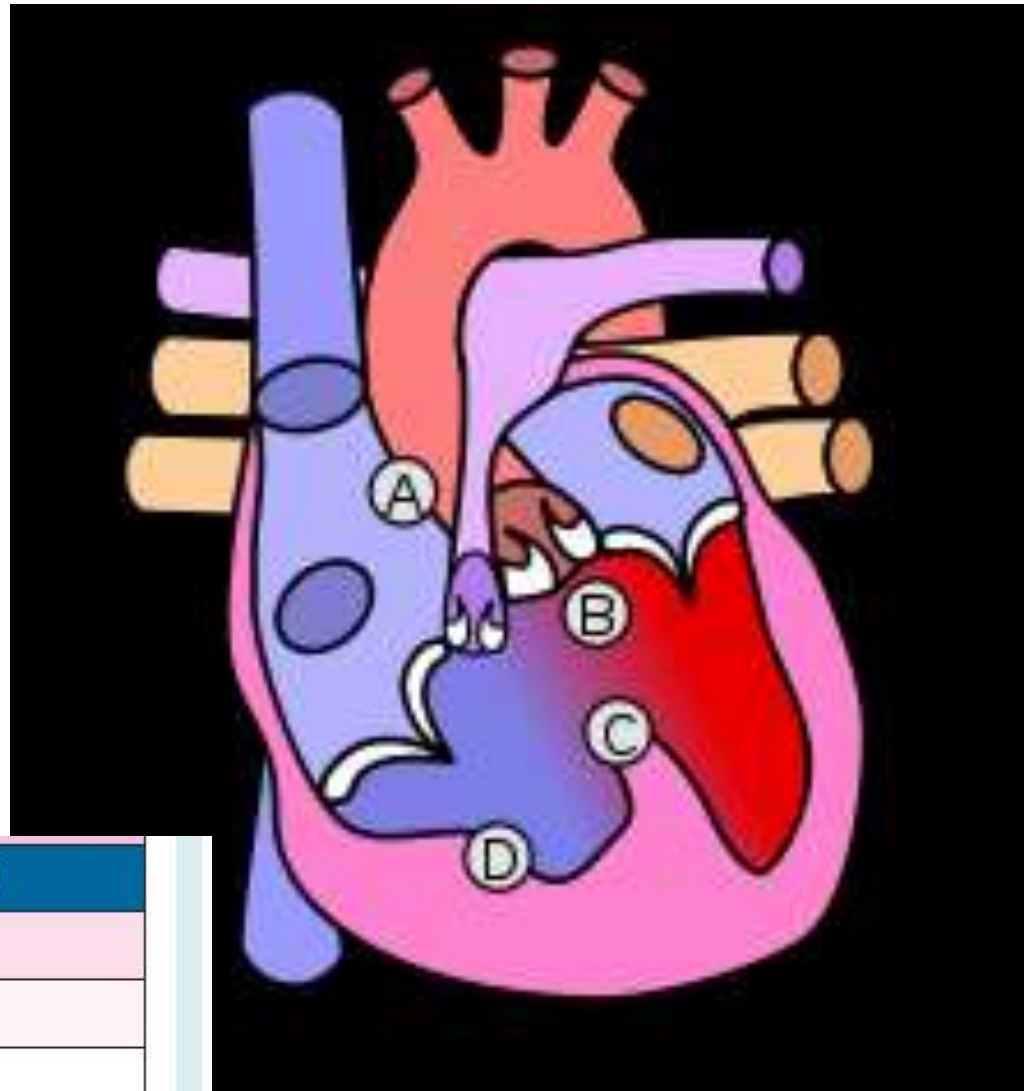




REGISTRY OF PREGNANCY AND CARDIAC DISEASE (ROPAC)



Tetralogy of Fallot



Conditions in which pregnancy risk is WHO II or III

WHO II (if otherwise well and uncomplicated)

- Unoperated atrial or ventricular septal defect
- Repaired tetralogy of Fallot
- Most arrhythmias

Congenital Heart Disease

Outcomes of Pregnancy in Women With Tetralogy of Fallot

Gruschen R. Veldtman, MBChB, MRCP, Heidi M. Connors, MD, PhD, Naser M. Ammash, MD, FACC, Carole A. Warnes, MD, PhD

Rock — Valvular and Congenital Heart Disease

Pregnancy Outcomes in Women With Congenital Heart Disease

Paul Khairy, MD, PhD; David W. Ouyang, MD; Susan M. Fernandes, MPH, PA-C; Aviva Lee-Parritz, MD; Katherine E. Economy, MD; Michael J. Landzberg, MD

Pregnancy in women with corrected tetralogy of Fallot: Occurrence and predictors of adverse events

Ali Balci, MD, MSc,^{a,b,i} Willeke Jolien W. Roos-Hesselink, MSc, PhD,^{f,i} Krystyna Philip Moons, RN, PhD,^{f,i} Kristien Dirk J. van Veldhuisen, MD, PhD,^{f,i} Rotterdam, Leiden, and Nijmegen

Tetralogy of Fallot: maternal and neonatal outcomes

E Gelson,^a M Gatzoulis,^b PJ Steer,^a M Lupton,^c M Johnson^a

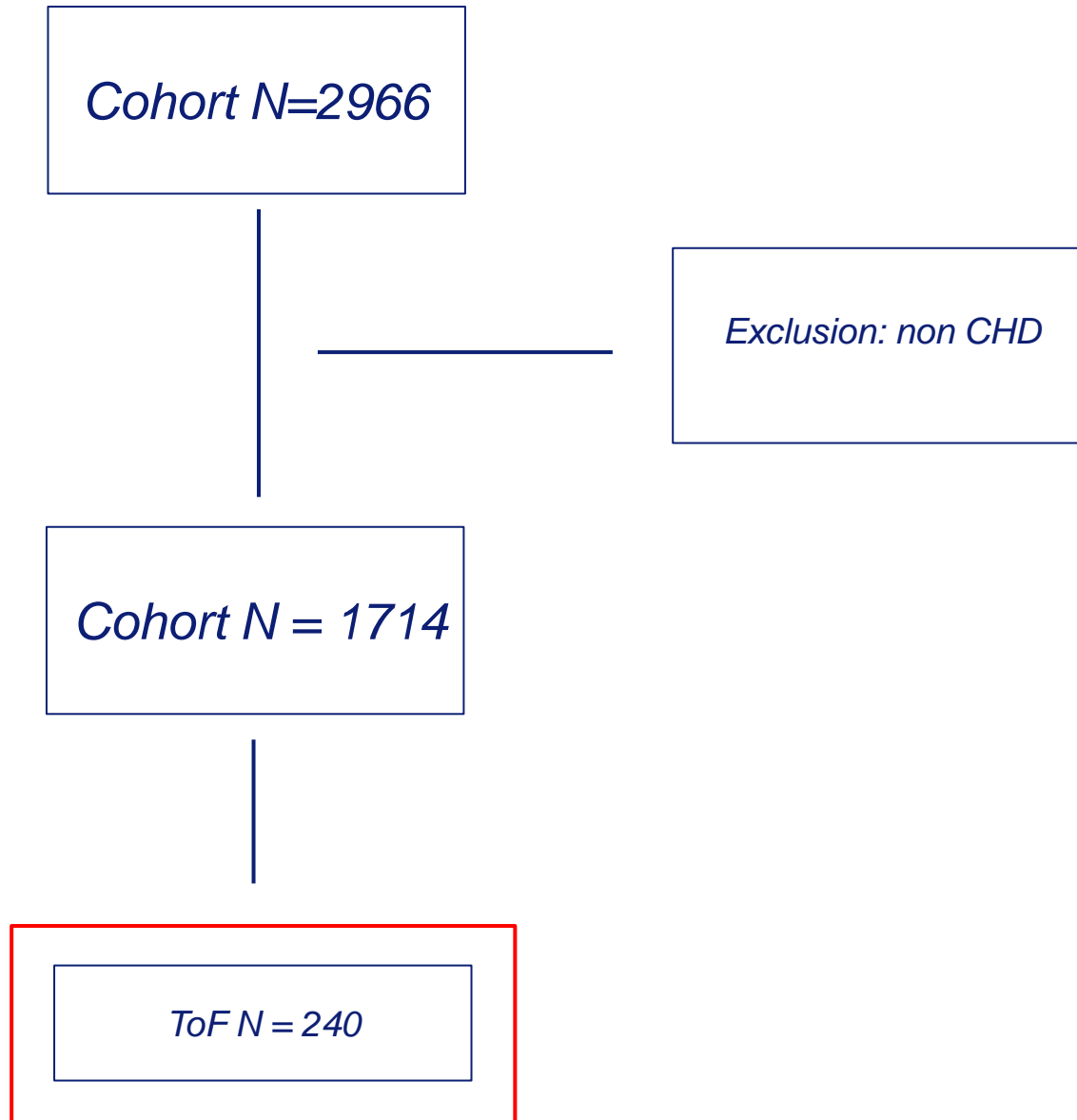
^aAcademic Department of Obstetrics and Gynaecology, Imperial College London, Chelsea and Westminster Hospital, London, UK ^bAdult Congenital Heart Centre, The National Heart and Lung Institute, Imperial College London, Royal Brompton Hospital, London, UK ^cChelsea and Westminster Healthcare NHS Foundation Trust, London, UK

Correspondence: Dr E Gelson, Academic Department of Obstetrics and Gynaecology, Imperial College London, Chelsea and Westminster Hospital, 369 Fulham Road, London SW10 9NH, UK. Email e.gelson@imperial.ac.uk

CONGENITAL HEART DISEASE

Pregnancy, fertility, and recurrence risk in corrected tetralogy of Fallot

J M Meijer, P G Pieper, W Drenthen, A A Voors, J W Roos-Hesselink, A P J van Dijk, B J M Mulder, T Ebels, D J van Veldhuisen



Results

Baseline prior to pregnancy	
	N = 240
Mean age (SD)	28.7 (5.1)
Nulliparity	129 (54%)
Prior surgical correction	237 (99%)
Hypertension	7 (3%)
Current smoking	11 (5%)
Heart failure	9 (4%)
Medication	10 (4%)
Beta blocker	10 (4%)
Diuretics	3 (1%)
NYHA class I	185 (77%)
NYHA class II	51 (21%)
Moderate/severe pulmonary insufficiency	54 (23%)

Results

Total of 18 patients with cardiovascular events* (8%)

*** Combined CV event:**

- Maternal mortality
- Ventricular and supraventricular arrhythmias
 - Heart failure
- Ischemic/thrombotic event
 - Endocarditis

	N = 240	Healthy pregnant population
Maternal mortality	0 (0%)	< 0.01%
Supraventricular arrhythmias	5 (2%)	< 0.5%
Ventricular arrhythmias	7 (3%)	< 0.5%
Heart failure	11 (5%)	< 0.01%
Thrombotic event	1 (0.5%)	-

Resultaten

Total of 40 patients with fetal events* (17%)

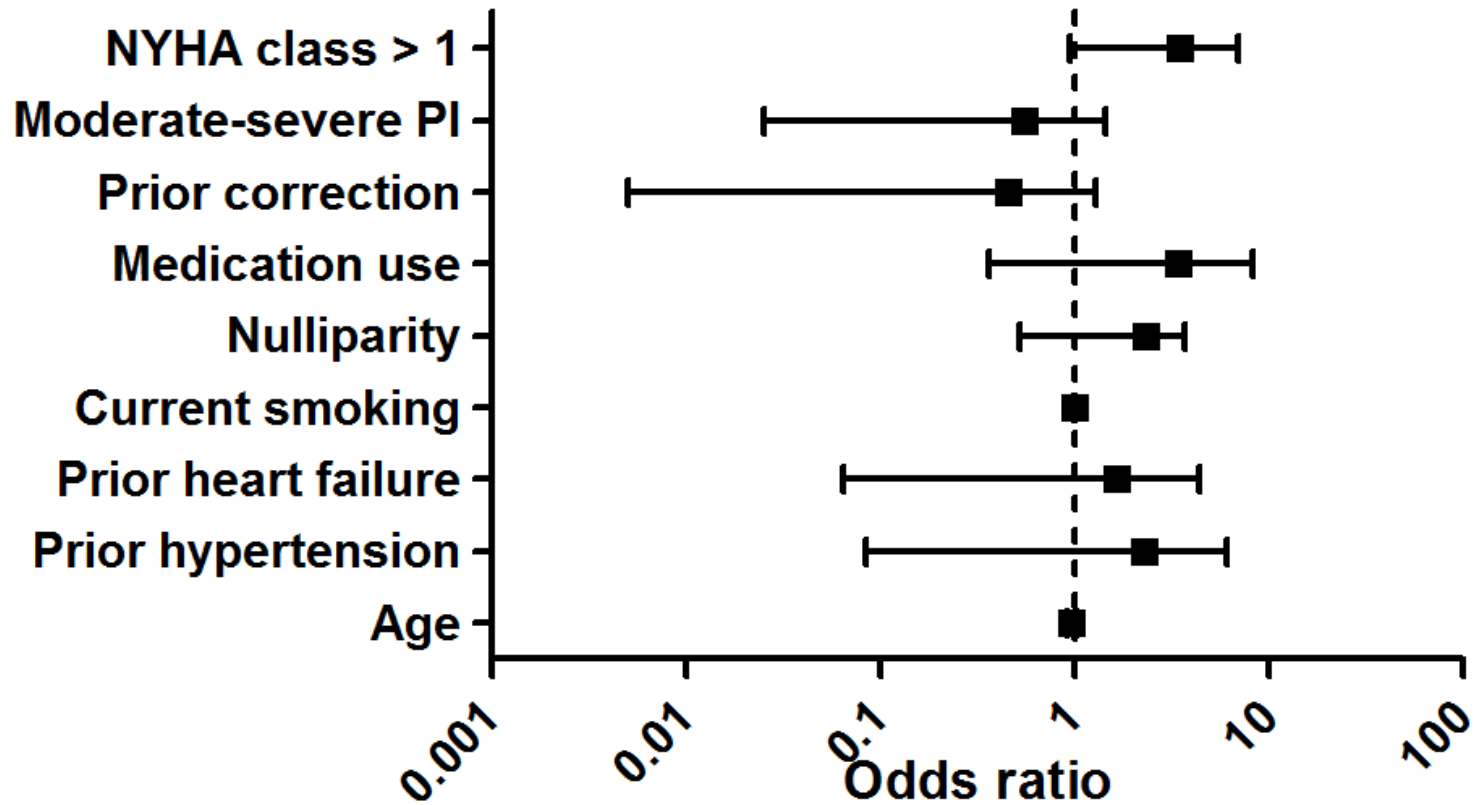
*** Combined fetal event:**

- Prematurity (<37 wk)
- Low birth weight (<2500g)
 - Low apgar score
- Neonatal or fetal mortality

	N = 65	Healthy pregnant population
Fetal mortality	3 (1%)	0.35%
Neonatal mortality	0 (0%)	0.4%
Prematurity	34 (14%)	5-7%
Low Birth Weight	19 (8%)	2-6%
Low Apgar Score	9 (4%)	-
Pregnancy duration (median, IQR)	38.4 (37.3 – 39.7)	-

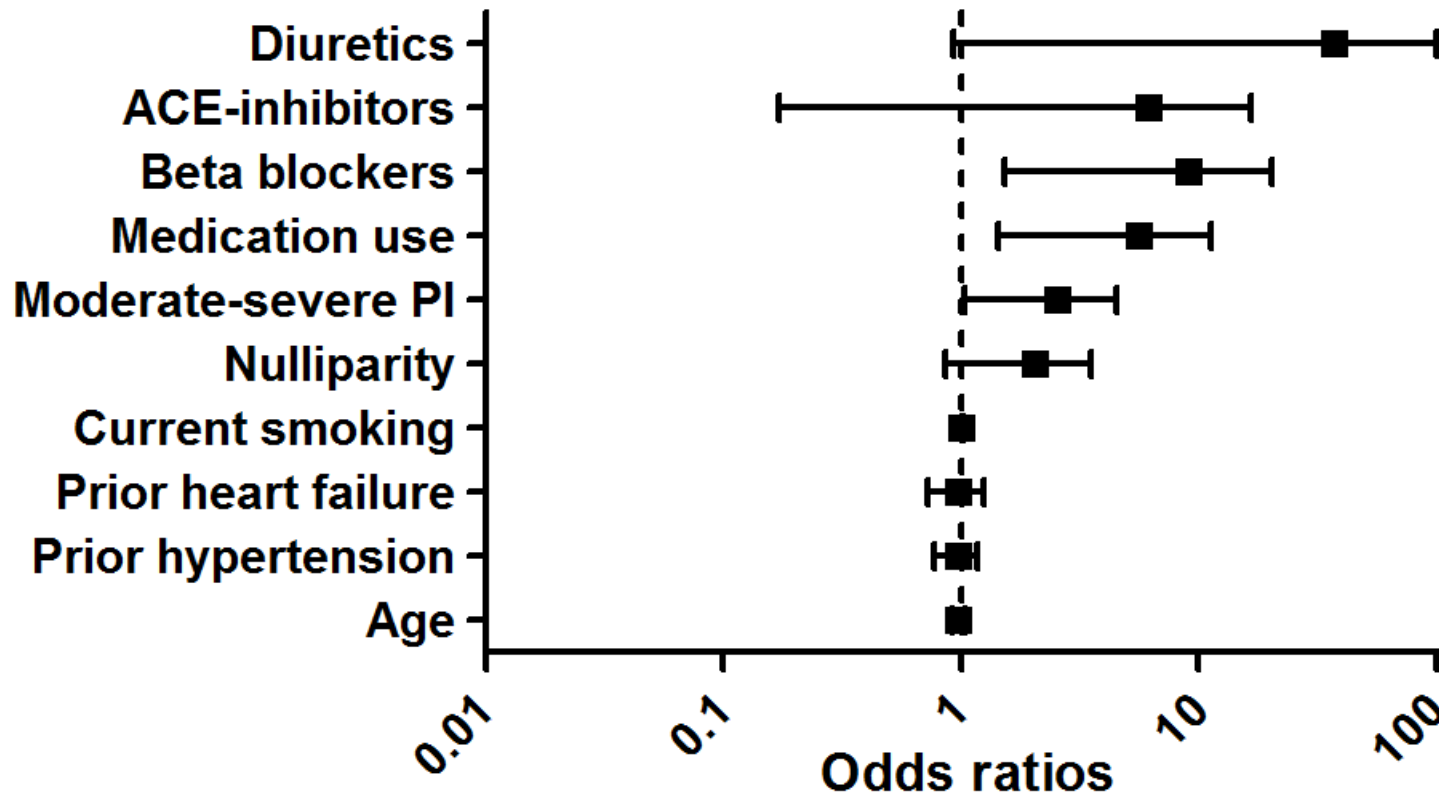
Predictors

Univariable odds ratios CV complications



Predictors

Univariable odds ratios Fetal complications



Conclusions

Women with Tetralogy of Fallot have relatively favorable cardiovascular pregnancy outcomes.

There is a relatively high incidence of fetal complications, which might be related to medication use or moderate/severe pulmonary insufficiency

Take Home Messages

Most women with ToF tolerate pregnancy well

There is no indication for discouragement of pregnancy

However, cardiovascular and fetal complications are not uncommon

Therefore, multidisciplinary management in specialized centers is indicated



Thank you for your attention

