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The compliance with “best” medical therapy in type B aortic dissection patients is poor – we need to optimize medical treatments to improve long-term outcomes

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Disclosure

Speaker name: Colin Bicknell

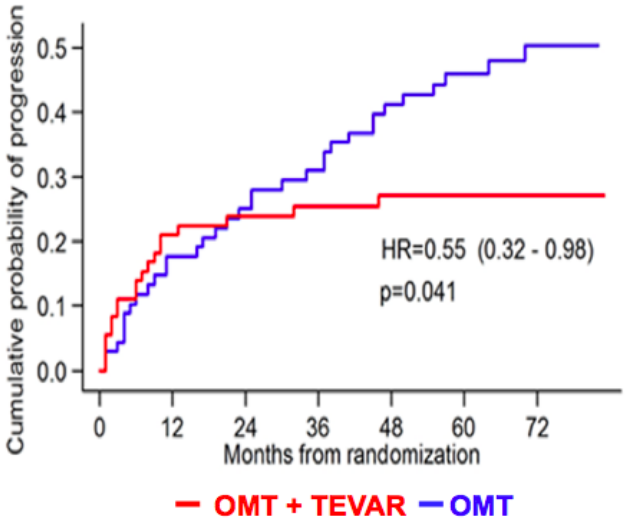
I have the following potential conflicts of interest to report:

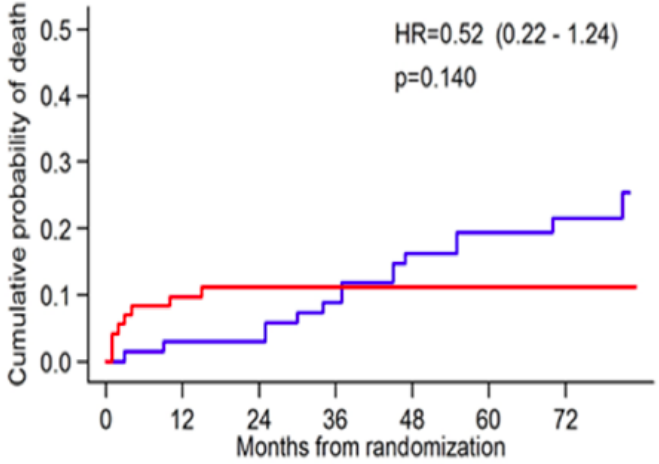
- [X] Consulting – Medtronic, Bolton Medical, Orzone
- [ ] Employment in industry
- [ ] Stockholder of a healthcare company
- [ ] Owner of a healthcare company
- [X] Other(s) – Speaker, travel and conference fees from Medtronic and Bolton and Gore;

Imperial College London:

- [X] Institutional level funding from Orzone

BEST MEDICAL THERAPY IN TBAD





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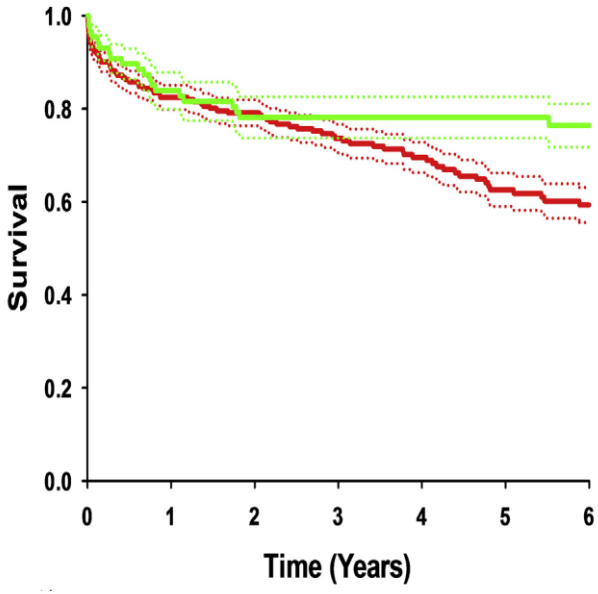

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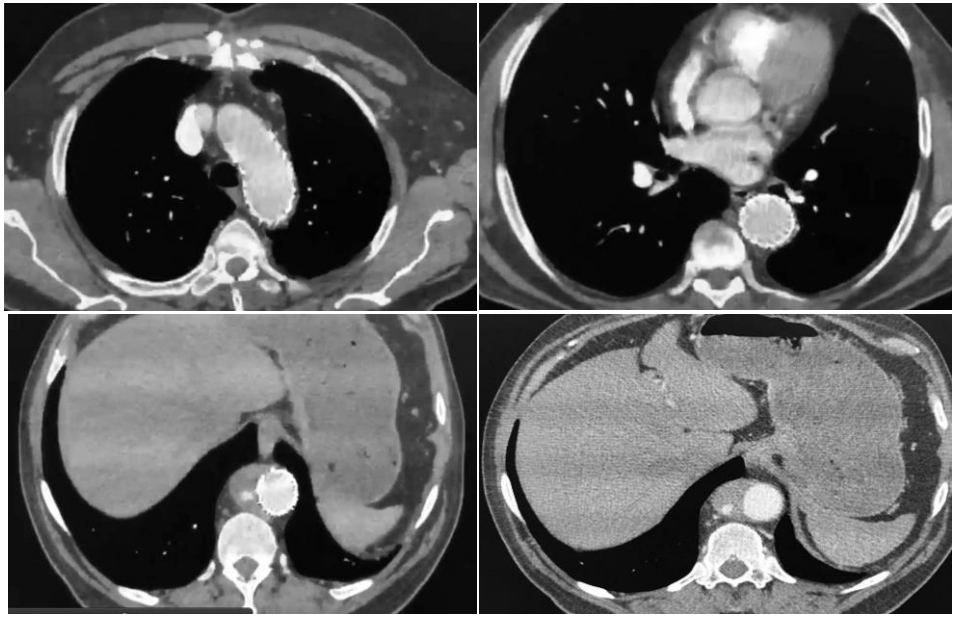
Guidelines for Best Medical Therapy

Aggressive anti-impulse therapy is the cornerstone of management in the majority of patients with TBAD who are currently managed conservatively.

Guidelines recommend goal-directed therapy to achieve a heart rate of less than 60bpm and systolic pressure of 100-120mmHg; goals which may require a number of pharmacological agents to achieve

Higher systolic blood pressure readings at night have prognostic significance, and are associated with an increased risk of aortic events during follow-up in those with TBAD



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HYPERTENSIVE POPULATION

- General hypertensive population
  - 37% patients have controlled BP
  - 50% patients non-adherent in 1st Yr of treatment
  - Higher levels of adherence result in better BP control and reduced cardiovascular morbidity
- Rate of medication adherence unknown in TBAD
- If poor, does this provide a valid basis for comparison of treatment strategies?

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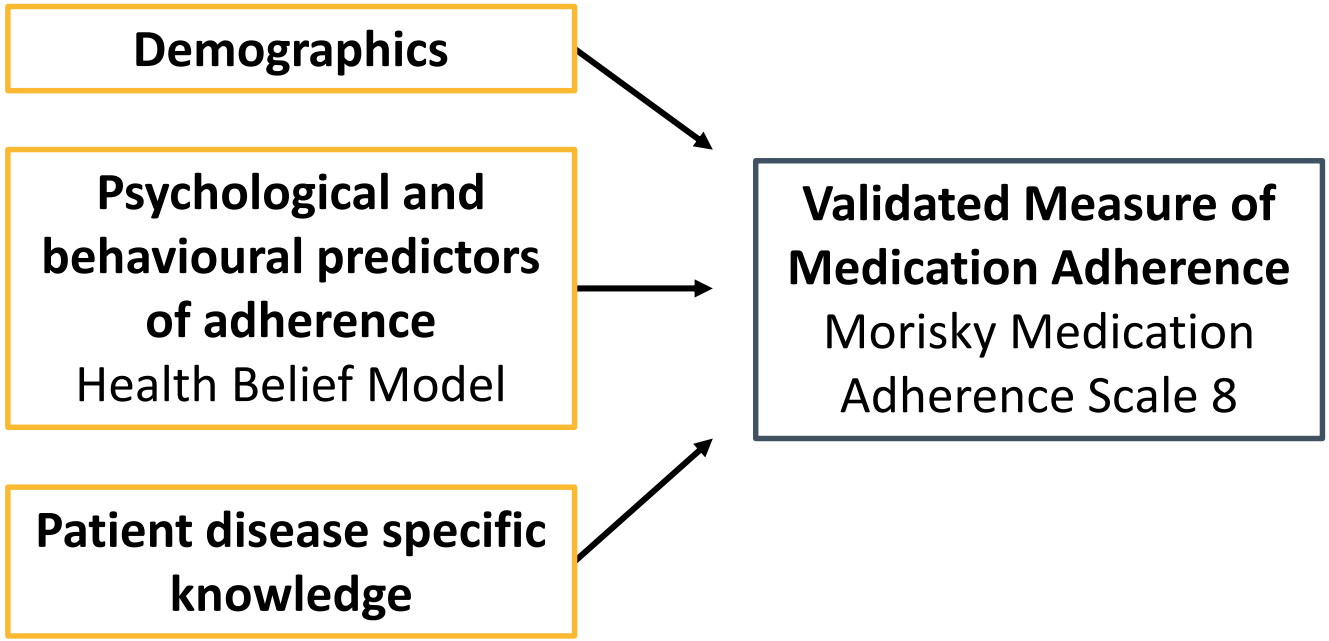
CROSS SECTIONAL ANALYSIS OF TBAD PATIENTS

- Mixed methods study in tertiary centre for complex aortic disease



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DEMOGRAPHICS

N = 47		
	Mean age	**59 (31-100)**
	Male sex	**38 (80.9%)**
	CKD (eGFR <60ml/min/1.73m^2)	**9 (19.1%)**
	Dyslipidaemia	**29 (61.7%)**
	IHD	**15 (31.9%)**
	Connective tissue disorder	**6 (12.8%)**
Previous aortic surgery	Open	**10 (21.2%)**
	Endovascular	**12 (25.5%)**
	Hybrid	**3 (6.4%)**
Number of medications (mean)	All	**5.8 (2-14)**
	Anti-HTN	**1.9 (1-6)**
	Symptomatic at TBAD diagnosis	**34 (72.3%)**

RESULTS

High Adherence
20/47 (42.5%)

Medium Adherence
17/47 (36.2%)

Low Adherence
10/47 (21.3%)

- **Overall medication adherence was poor**
  - Mean MMAS-8 = 6.51/8

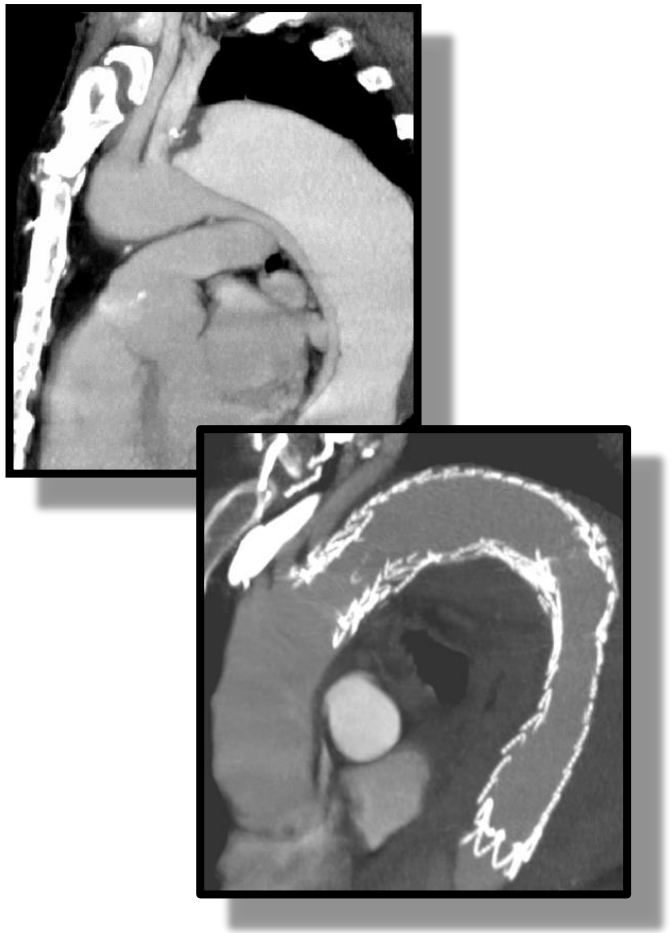
Psychological Behaviors have a strong bearing on adherence

- Demographics psychological and behavioural predictors of adherence
  - Previous aortic surgery (ß 0.332, p=0.03)
  - Greater number of medications (ß 0.332, p=0.026)
  - Fewer medication side effects (ß=0.272, p=<0.014)
  - Better memory (ß=0.579, p=<0.001)
  - Higher perceived benefit (ß= 0.486, p=<0.001)
- Overall patients had a poor knowledge about TBAD
  - Test score = 8.8/16 (94-14)

Stepwise multiple linear regression analysis to assess demographic, psychological and behavioural predictors of adherence

Key Messages

- Medication adherence is poor in TBAD patients
  - >50% of patients report sub-optimal adherence
  - Adherence especially poor in non-operative group
- Low levels of adherence may play a part in the high levels of aortic morbidity and mortality in this cohort
- Brings into question whether there has been a robust comparison of treatment strategies for TBAD when half of one treatment group do not receive the intervention?



RECOMMENDATIONS

- SPECIALIST DISSECTION CLINICS
  - Measurement of compliance
  - anchoring positive health behaviors to salient events improves compliance with treatment
  - ‘coaching and oversight’ of treatment strategies
- SHARED MEDICAL APPOINTMENTS
  - Increase knowledge of disease
  - Support and counseling
- BEHAVIOURAL PSYCHOLOGY STRATEGIES
  - Text messaging and compliance
  - Habit formation
- A RECOGNITION WHEN CONSIDERING THE TREATMENT OF UNCOMPLICATED TBAD