



18 Years of Paediatric Catheter Ablation in One Country: Long-Term Results

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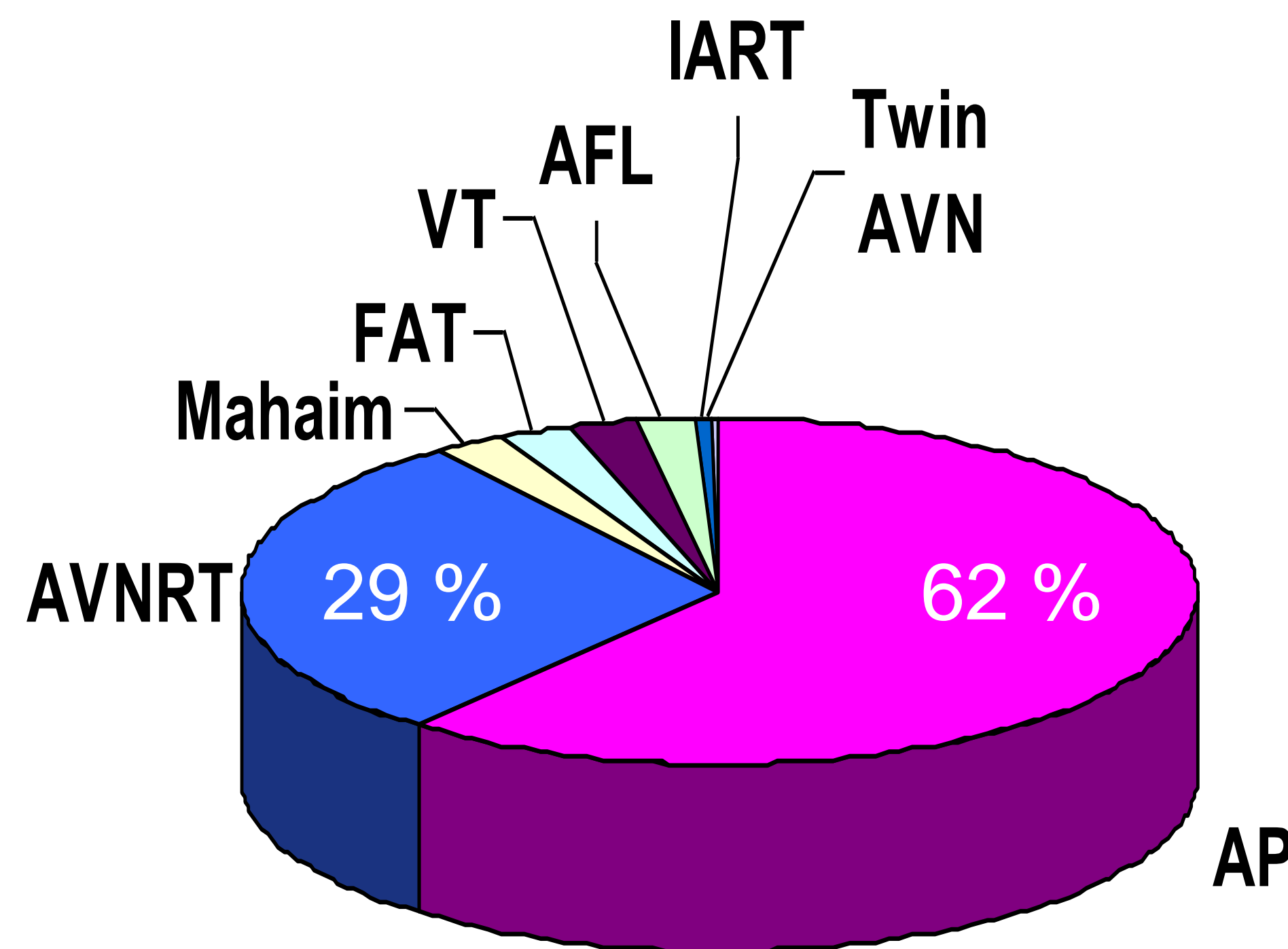
Introduction:

The aim was to evaluate long-term results of paediatric catheter RF ablation in one country

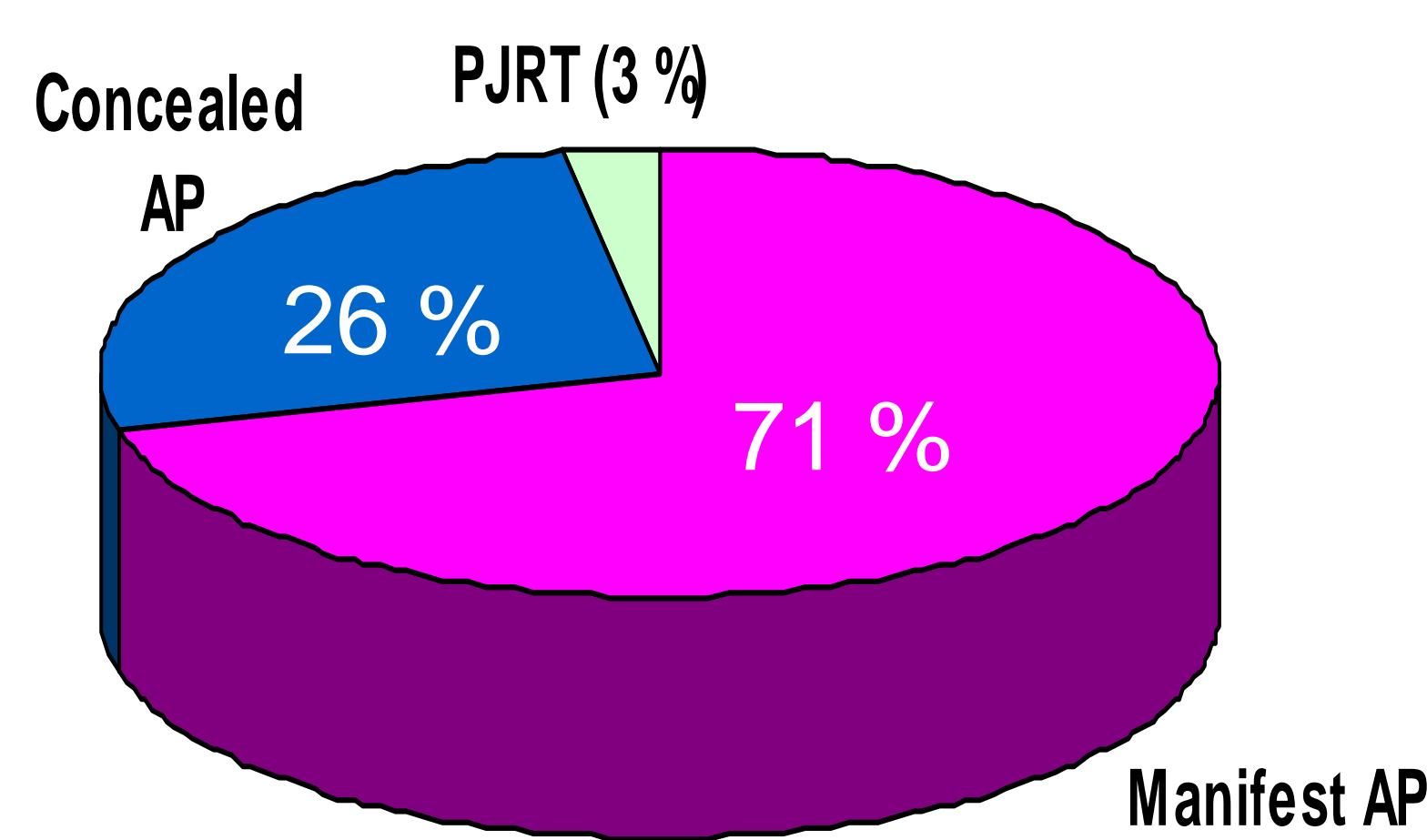
Methods:

- Patients N=625
 - » territory: Czech Republic (10.5 mil. inhabitants)
 - » period 1993-2010
 - » age <18 years
 - » median 13 (IQR 8-23) yrs
 - » 3 centres, 695 ablation procedures/701 different arrhythmogenic substrates
 - » primary procedure (N=625)
 - » re-ablation (N=70)
 - » cong. heart disease in 7.5 % of pts
 - » antiarrhythmic drugs before procedure: 66.3 % pts
- Follow-up
 - » 1 month and 1 year after the procedure
 - » median FUP: 13.6 (IQR 4.3 – 21.1) months

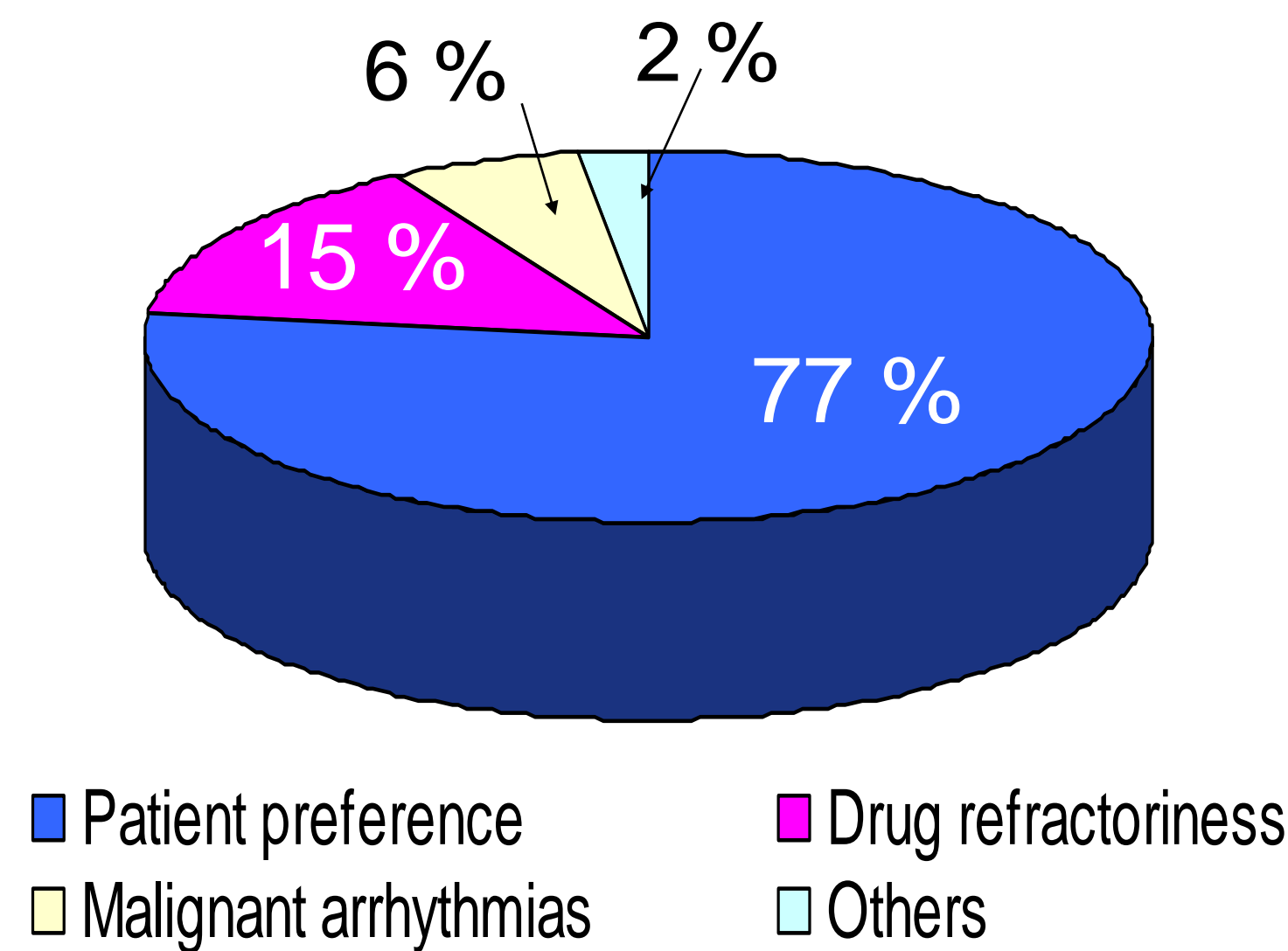
Arrhythmogenic substrates



Type of accessory pathway

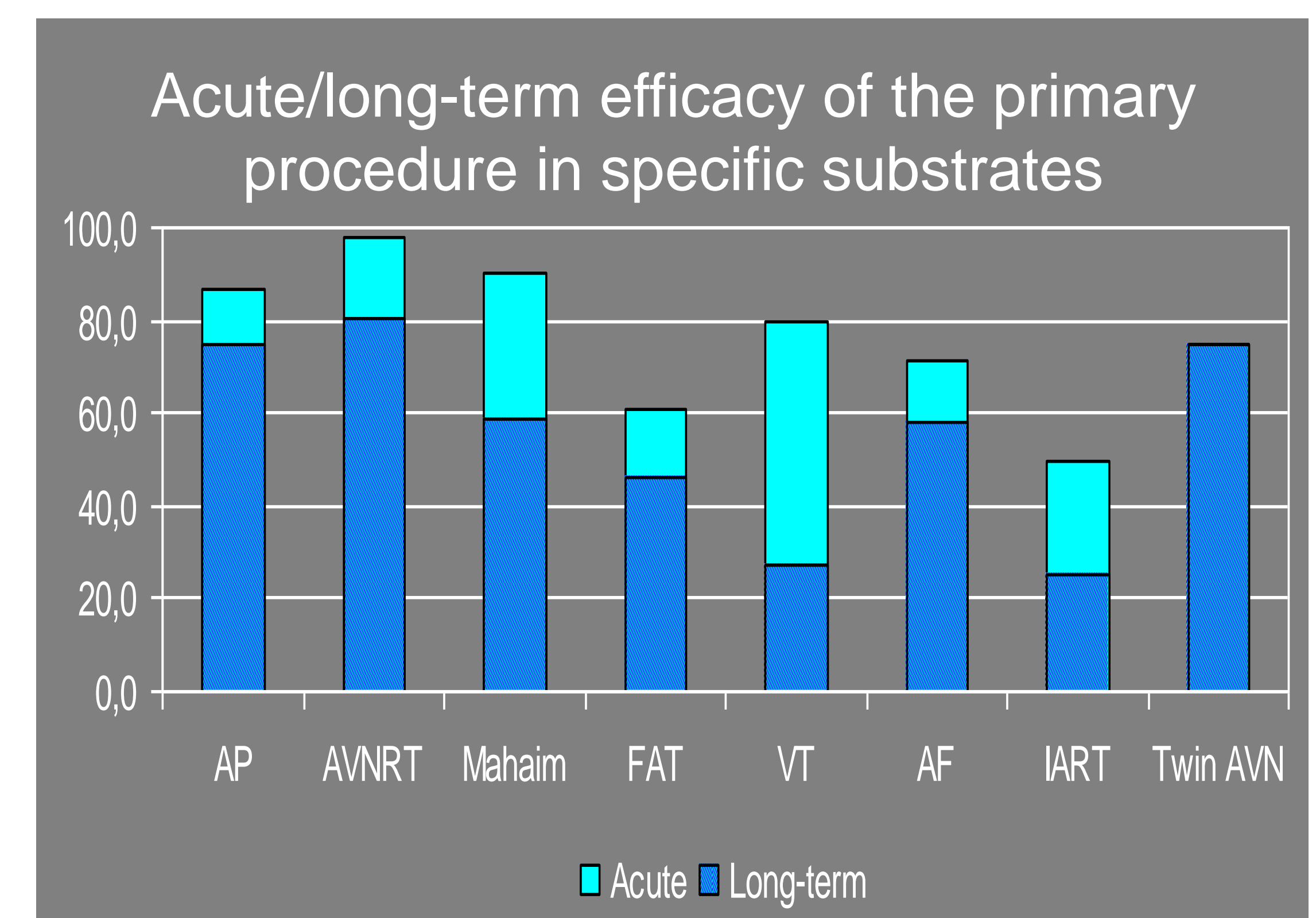


Indications



Results:

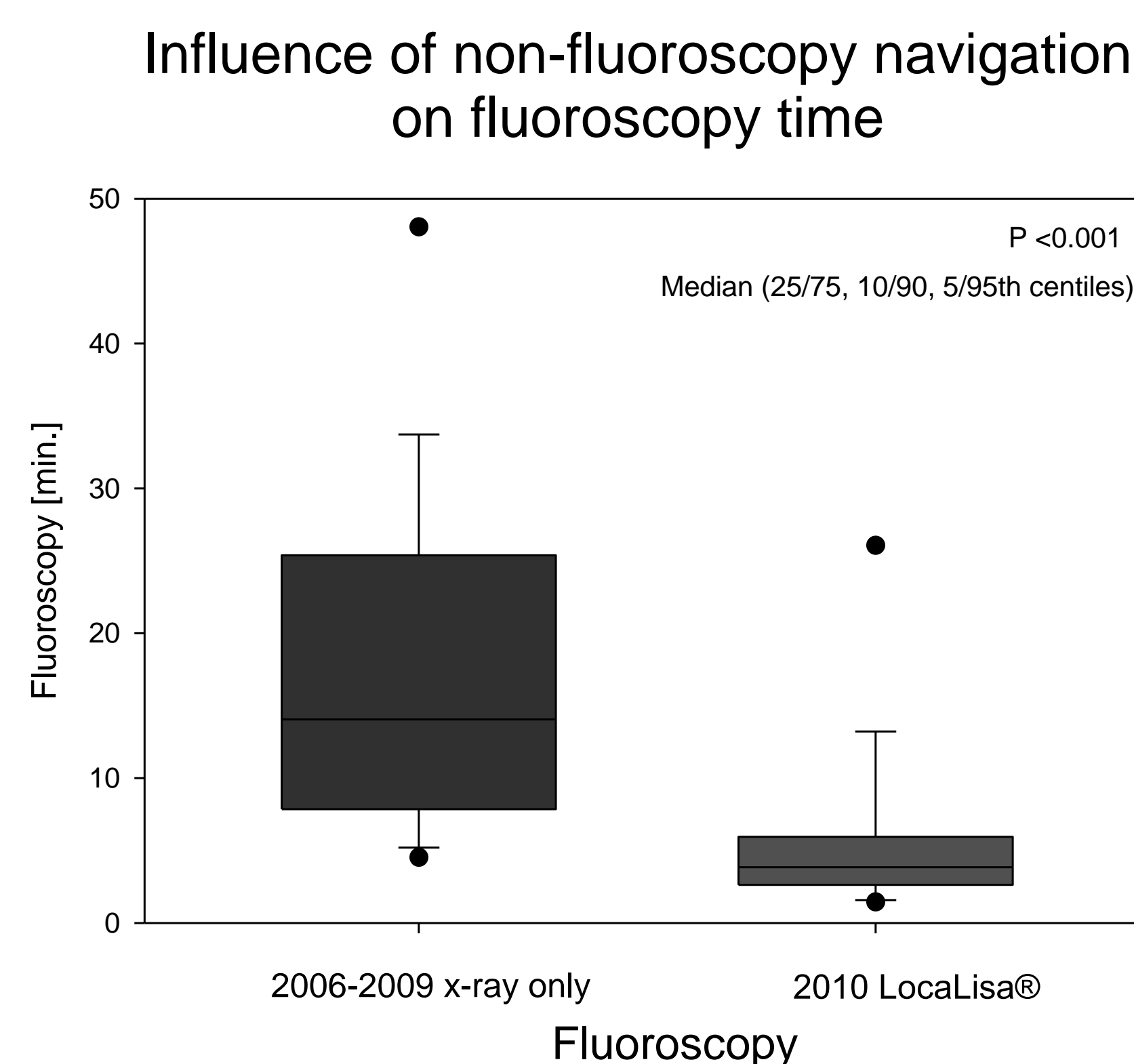
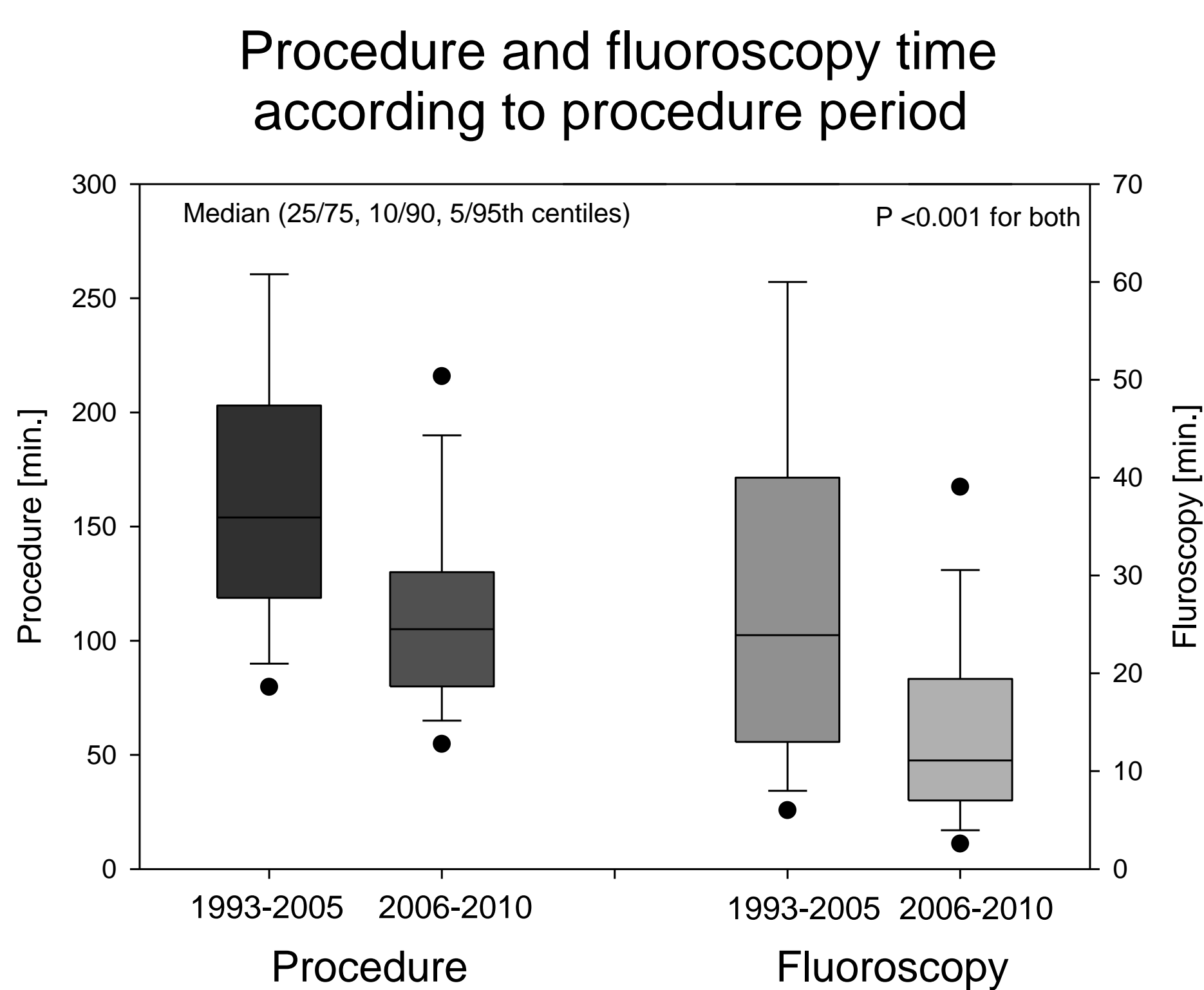
- Success of the primary procedure (all substrates)
 - » acute: 89.1 %
 - » long-term: 73.4 %
- Long-term cumulative efficacy
 - » primary procedure and re-ablation: 81.1 % (re-ablation performed in 74/170 substrates after a primary unsuccessful procedure)



(AP=accessory pathway, AVNRT=AV nodal reentry tachycardia, FAT=focal atrial tachycardia, VT=ventricular tachycardia, AF=atrial flutter, IART=intraatrial reentry tachycardia, AVN=AV node)

Complications:

- 9 pts. (1.4 %)
- 3rd AV block: 3 pts. (0.5 %)
 - » slow pathway (AVNRT) ablation (2/203 [1 %])
 - » septal pathway (1/152 of all septal pathways [0.7 %])
- Neurological: 2 pts. (0.3 %)
 - » n. peroneus paresis
 - » central lesion with complete recovery (anaesthesia compl.)
- Trauma of a. femoralis: 4 pts. (0.6 %)
 - » pseudoaneurysm (3x), rupture of a. femoralis (1x)



Conclusions:

- RF catheter ablation was a safe method of arrhythmia treatment in children with long-term efficacy approaching 80 %.
- Patient choice was the most common indication.
- Procedure and fluoroscopy time decreased with increasing experience.
- X-ray exposure may further be significantly limited using non-fluoroscopy navigation

Disclosure:

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