

## 発作性心房細動におけるカテーテルアブレーションの優位性(ESC2015 Presentation # 5777)

MANTRA-PAF: 心房細動軽減においてファーストラインとしてのカテーテルアブレーションは薬物療法より優れる

MANTRA-PAF: First-line catheter ablation superior to drug therapy for reducing atrial fibrillation

心房細動軽減においてカテーテルアブレーションを用いたファーストライン治療が薬物療法よりも優れているとの5年間のMANTRA-PAFトライアルの結果が2015年ESC Congressで発表された。国際多施設共同のこのトライアルでは、重度の症状を有する発作性心房細動患者294人を対象に、ファーストライン治療としてカテーテルアブレーションまたは抗不整脈薬治療群にランダムに割り付けた。以前に示された2年間のトライアル結果によると、両治療群ともに心房細動を有効に減少させたが、どちらの治療が優れているかについては示されなかった。5年間の追跡調査は294人中245人(83%)において完遂され、うち125人はファーストライン治療としてカテーテルアブレーション、120人は抗不整脈薬群に割り付けられた。ホルター心電図検査は227人に施行された。心房細動の回避は、あらゆる心房細動(126/146対105/148,  $p=0.02$ )および症候性心房細動(137/146対126/148,  $p=0.015$ )いずれにおいても、抗不整脈薬群よりもカテーテルアブレーション群で高かった。心房細動負荷はカテーテルアブレーション群の方が抗不整脈薬群よりも有意に少なかった(あらゆるAF:  $p=0.003$ 、症候性AF:  $p=0.02$ )。この結果は、ホルター心電図検査を実施しなかったことで補正しない場合でも同等であった。

### Full Text

First-line treatment with catheter ablation is superior to drug therapy for reducing atrial fibrillation, according to five year results from the MANTRA-PAF trial presented for the first time at ESC Congress 2015.

Atrial fibrillation (AF) is the most common heart rhythm problem that requires medical treatment. Atrial fibrillation reduces quality of life and is associated with increased risk of stroke and disability. Atrial fibrillation is more common with higher age, and is observed in 2% of people aged 60 years and at least 5% of the population older than 70 years.

"In clinical practice most doctors choose antiarrhythmic drug therapy for initial treatment of symptomatic atrial fibrillation and catheter ablation is used for patients who fail drug therapy," said principal investigator Professor Jens Cosedis Nielsen, consultant cardiologist at Aarhus University Hospital in Denmark. "We asked the question: is catheter ablation superior to antiarrhythmic drug therapy as first-line treatment?"

MANTRA-PAF (Medical Antiarrhythmic Treatment or Radiofrequency Ablation in Paroxysmal Atrial Fibrillation) was an international multicenter trial conducted by heart rhythm specialists. A total of 294 patients with highly symptomatic paroxysmal atrial fibrillation were randomized to receive either catheter ablation or antiarrhythmic drug therapy as first-line treatment. The two-year results of the trial showed that both treatments reduced atrial fibrillation effectively, but none of the two treatment strategies were superior.

The five-year outcomes were presented at ESC 2015. The primary endpoint was the burden of atrial fibrillation assessed by seven day Holter recording. Secondary endpoints were burden of symptomatic atrial fibrillation, quality of life (using physical and mental component scores of the SF-36 questionnaire), and need for additional catheter ablation procedures since the two-year follow up. Analysis was by intention-to-treat and imputation was used to compensate for missing Holter data.

Five year follow up was achieved in 245 out of 294 patients (83%), of which 125 had been randomized to catheter ablation and 120 to antiarrhythmic drug therapy as first-line treatment. Holter recording was available for 227 patients. More patients in the catheter ablation group were free from any atrial fibrillation (126/146 versus 105/148,  $p=0.001$ ) and symptomatic atrial fibrillation (137/146 versus 126/148,  $p=0.015$ ) than those in the antiarrhythmic drug therapy group. Atrial fibrillation burden was significantly lower in the catheter ablation group (any AF:  $p=0.003$ , symptomatic AF:  $p=0.02$ ) compared to the antiarrhythmic drug therapy group. The results were similar when not compensating for missing Holter recordings.

"At five-year follow-up less atrial fibrillation was observed with catheter ablation as first line treatment," said Professor Nielsen. "The findings indicate that first-line treatment with catheter ablation is superior to drug therapy for reducing atrial fibrillation. The different outcomes observed at two and five years may be because the two treatments have different modes of action."

There was no difference between the two groups in the number of additional catheter ablation procedures since the two-year follow up. Quality of life scores at five years did not differ between groups (physical component score  $p=0.88$ , mental component score  $p=0.94$ ) but remained improved from baseline (both components  $p<0.001$ ) and did not differ from the two year scores.

"Quality of life scores remained improved from before treatment initiation with either of the two treatments," said Professor Nielsen. "This indicates that quality of life can be improved long-term by treatment aiming to withhold normal heart rhythm, either by antiarrhythmic drug therapy or catheter ablation."

He concluded: "The results indicate that first-line catheter ablation is superior to drug therapy for suppressing atrial fibrillation in patients with paroxysmal AF. The choice of first-line treatment strategy still needs to be discussed with individual patients taking into account their disease burden and risks associated with the different treatment strategies."

The study was funded by the Danish Heart Foundation and Biosense Webster. Biosense-Webster supported the MANTRA-PAF trial with an unrestricted grant. Jens Cosedis Nielsen has received speaker's fees from Biosense-Webster and Biotronik and consultant's fees from Boston Scientific.

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