Opportunistic Screening for atrial fibrillation in hypertensive patients using a mobile application
(Prospective study of 160 cases)

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INTRODUCTION

- Atrial fibrillation (AF) is the most common cardiac arrhythmia, affecting between 1 and 4% of the general population and responsible for 10 to 20% of strokes.
- New technologies are now available for screening for AF, but their implementation in real clinical settings has not yet been fully investigated.

Thus, the aim of our study was to:

- evaluate the electrocardiogram (ECG) recordings on smartphones intended for screening for AF using the KardiaMobile device (Alivecor), with a dedicated mobile application.
- Highlight the prevalence of AF in a hypertensive population
- Evaluate the effectiveness of computerized screening for AF in therapeutic management
**METHODS**

- Prospective screening for AF in patients aged **55 or over**, known to be **hypertensive for at least 5 years**, was performed at the cardiology consultation services between **June 2019 and July 2020**.
- The CHA2DS2-VASc score was collected from each patient. A single lead ECG was acquired by placing the fingers of each hand on the electrodes.
- The diagnosis of the Kardia app was assessed by the cardiologist consultation, and a baseline ECG was performed for each suspected arrhythmia.

**RESULTS**

- Confirmed AF = **7.5% of the population screened**
- Anticoagulation = **91.6%**
  - (6.8% of patients screened)
- Possible AF
- Unclassified ECG

Abnormal ECG

Normal ECG

- 0.00%  50.00%  100.00%
DISCUSSION – CONCLUSION

• Current study supports the feasibility of implementing an AF screening program in the follow-up of hypertensive patients
• The 7.5% detection rate observed in this study is higher than that seen in comparable single-point screening programs.

• Mobile Device for screening for atrial fibrillation in a population at risk = promising, inexpensive tool
• Significant prognostic benefit for the prevention of cardiovascular complications (stroke, etc.)