6 MONTHS PROSPECTIVE AUDIT OF IMPLANTABLE LOOP RECORDERS - WHAT DOES THIS TELL US ABOUT DIAGNOSTIC YIELD?

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Indications for ILR

- TLOC is common
  - Vasovagal 21.2%
  - Cardiac syncope 9.4%
  - 36.6% unknown causes
- Patients at increased risk of cardiac arrhythmias
- Patients who experience transient & infrequent symptoms such as Syncope that may suggest a cardiac arrhythmia (NICE 2010)
- ESC guidelines (2018) give a class 1 recommendation for recurrent syncope
- Cryptogenic stroke
Cardiac monitoring

* Documentation is challenging
* Ability to activate the monitor whilst having symptoms
* External loop recorder 19%
* Frequent external monitoring tests although less invasive can be costly
* ILRs have 55% diagnostic yield & cost effective
**Diagnostic Yield**

- PICTURE Registry (2011)
  - Prospective, multicentre registry for unexplained syncope 2006-09
- Only 50% ILRs had automatic recordings
- Home monitoring not available
- 78% of patients ILR guided diagnosis
- Time to diagnosis
  - 9% 1 month
  - 20% 6 months
UHL ILR Service

* Dedicated ILR service
* Nurse led service
* Established end May 2017
* Implant no.s to date
* Prospective audit
Audit Objectives

* Maintain & Improve complication rates
* Review the indications of ILR
* Review diagnostic information at:
  * 1, 3, 6 & 12 months
* 106 patients with 6 month follow up data
* Automatic recording and Home monitoring
1st month Diagnostic Information

- SR with symptoms
- Sinus Tachy
- VE
- AF / A. Flutter
- Sinus pauses / AV block
- Collapse no Arrhythmia
- Sinus Brady
- APBs

1 month
1\textsuperscript{st} month results

- 38% of patients presented with symptoms
- 5.8% had pacing indications
3rd month Diagnostic Information

- SR with symptoms
- Sinus Tachy
- VE
- AF / A. Flutter
- Sinus pauses / AV block
- Collapse no Arrhythmia
- Sinus Brady
- APBs

Legend:
- Red: 3 months
- Blue: 1 month
6th month Diagnostic Information

- SR with symptoms
- Sinus Tachy
- VE
- AF / A. Flutter
- Sinus pauses / AV block
- Collapse no Arrhythmia
- Sinus Brady
- APBs
- No symptoms

- 6 months
- 3 months
- 1 month
6 month results

- 69% of patients presented with symptoms
- 31% had no symptoms since the implant
- 8.6% had pacing indications

Chart showing:
- 76% Sinus pauses
- 12% AV block
- 12% AF with pauses
6 months results cont..

- 8.60%
- 8.50%
- 3%
- 2%
- 12%
- 17%
- 31%

- No Symptoms / activations
- Sinus rhythm
- Sinus Tachy
- Ventricular Ectopics
- Collapse no Arrhythmia
- Sinus Pauses / AV block
- AF / Flutter
- Sinus brady
- Atrial Premature Beats
Conclusion

- ILR have a high diagnostic yield compared to external systems
  - Automatic recordings
  - Home monitoring
- 38% of patients presented with symptoms in the first month
- 59% presented within 6 months
- Consistent with previous studies