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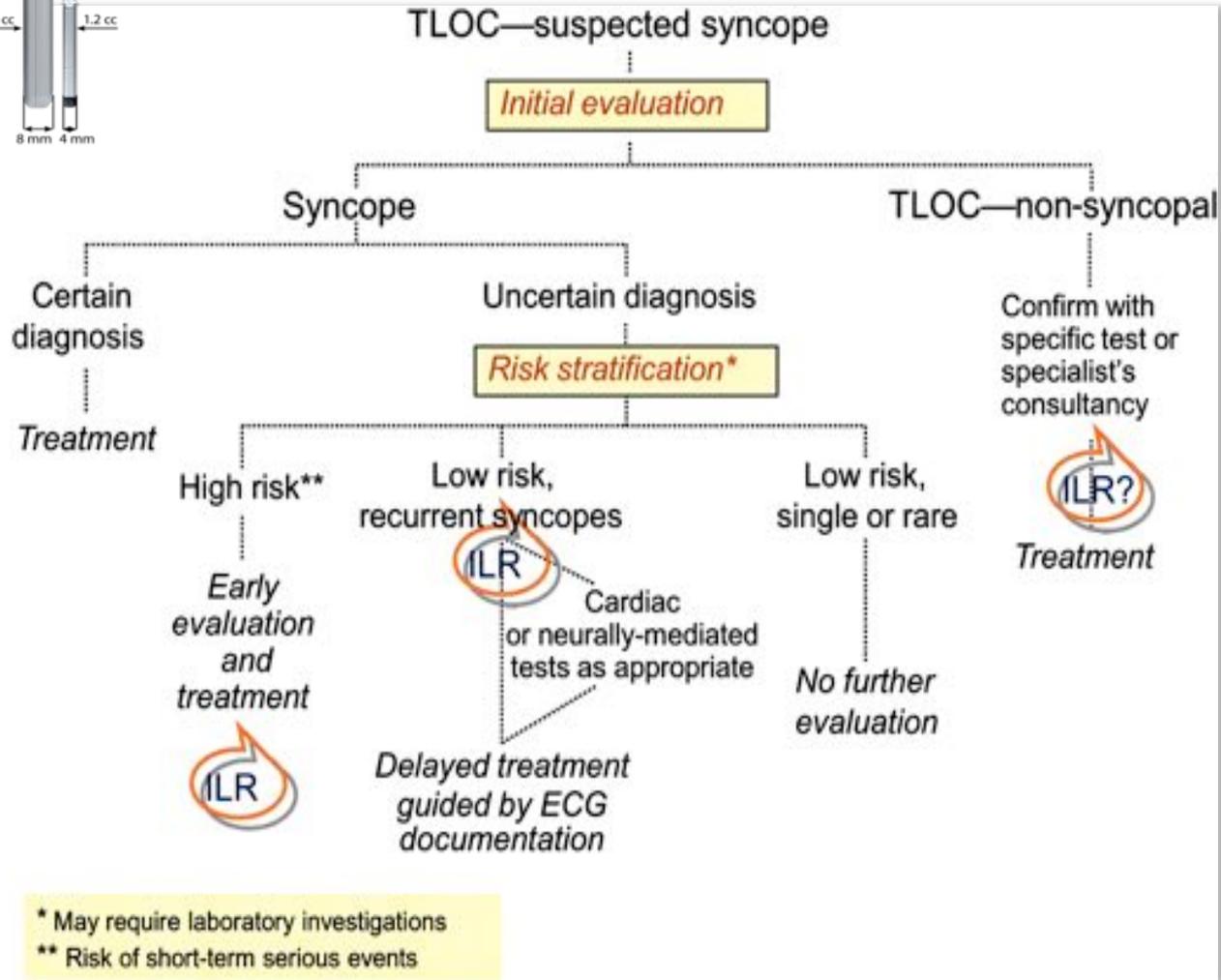
IMPLANTABLE LOOP RECORDER: A SYNCOPES UNIT EXPERIENCE

Andrea Ungar, MD, PhD & Martina Rafanelli, MD

Syncope Unit, Cardiology Geriatric
and Medicine, AOU Careggi and
University of Florence, Italy



ILR and not-syncopal TLoC



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CLINICAL RESEARCH

Additional diagnostic value of implantable loop recorder in patients with initial diagnosis of real or apparent transient loss of consciousness of uncertain origin

Maggi Roberto^{1,2†*}, Rafanelli Martina^{1,2†}, Ceccofiglio Alice^{1,2}, Solari Diana^{1,2}, Brignole Michele^{1,2}, and Ungar Andrea^{1,2}

and Adam Paul Fitzpatrick^{1*}

Kritam Karijwal, Beverly Karadim, Tousur Karijwal, Brian P. Grubb

**182 ILR between January 2003 and
May 2014**

Mean Age 70 ± 14.2

- **81 unexplained syncope**
- **3 psychogenic pseudo-syncope**
- **32 suspected epilepsy**
- **35 unexplained falls**
- **6 syncope and falls**
- **20 cryptogenic stroke**
- **5 suspected atrial fibrillation**



Characteristic of the study population

	Syncope (n=81)	Epilepsy (n=32)	Falls (n=35)	Syncope & Falls (n=6)	Pseudo- syncope (n=3)	Stroke (n=20)	AF (n=5)
Mean Age (years)	68±13.4	65.8±17.5	76.2±8.8	79±7.4	48.3±31	67±12	72±15
Age Range	28-89	19-88	53-93	72-89	16-78	37-82	45-79
Male/Female	45/36	18/14	7/28	4/2	1/2	13/7	3/2
previous events (n, %)	4.7±5	3.4±2.1	5.9±4.2	3±1.8	12.7±8.7	3.0±3.3	2.8

Coexistent pathological conditions

	Syncope (n=81)	Epilepsy (n=32)	Falls (n=35)	Syncope & Falls (n=6)	Pseudo- syncope (n=3)	Stroke (n=20)	AF (n=5)
Heart Disease (n,%)	29(36)	7(22)	12(34.3)	2(33.3)	1(33.3)	5(25)	1(20)
Bundle Branch Block (n,%)	5(6.2)	5(15.6)	6(17.1)	/	/	2(10)	1(20)
TT + (n,%)	25(43.9)	10(40)	4(16)	/	/	1(50)	/
OH (n,%)	25(30.9)	4(12.5)	6(17.1)	2(33.3)	1(33.3)	7(35)	1(20)
CSM + (n,%)	8(11.8)	2(7.7)	5(14.7)	/	/	/	/

Relapses under monitoring

	Syncope (n=81)	Epilepsy (n=32)	Falls (n=35)	Syncope & Falls (n=6)	Pseudo- syncope (n=3)	Stroke (n=20)	FA (n=5)
Syncope (n,%)	27(33.3)	17(53.1)	10(28.6)	3(50)	2(66.7)	1(5)	/
Presyncope (n,%)	30(37)	5(3.1)	6(17.1)	1(16.7)	2(66.7)	/	1(20)
Falls (n,%)	5(6.2)	/	14(40)	1(16.7)	/	/	/
Seizure (n,%)	1(1.2)	7(21.9)	/	/	/	/	/
Stroke/TIA (n,%)	1(1.2)	/	/	1(16.7)	/	2(10)	/

Arrhythmic Diagnosis

	Syncope (n=81)	Epilepsy (n=32)	Falls (n=35)	Syncope & Falls (n=6)	Pseudo- syncope (n=3)	Stroke (n=20)	AF (n=5)
Arrhythmic Diagnosis (n,%)	27(33.3)	8(25)	12(34.3)	5(83.3)	/	9(45)	5(100)
Asystole(n,%)	14(51.9)	8(100)	7(59.3)	1(20)	/	3(33.3)	/
Bradi- (n,%)	4(14.8)	/	/	1(20)	/	/	/
AF (n,%)	5(18.5)	/	2(16.7)	2(40)	/	6(66.7)	4(80)
PSVT (n,%)	2(7.4)	/	/	1(20)	/	/	1(20)
VT (n,%)	2(7.4)	/	3(25)	/	/	/	/
No Arrhythmia (n,%)	30(37)	11(34.4)	14(40)	1(16.7)	2(66.7)	1(5)	/
Definite diagnosis (n,%)	57(70.4)	19(59.4)	26(74.3)	6(100)	2(66.7)	10(50)	5(100)

Recurrence after diagnosis

	Syncope (n=81)	Epilepsy (n=32)	Falls (n=35)	Syncope & Falls (n=6)	Pseudo- syncope (n=3)	Stroke (n=20)	AF (n=5)
Syncope (n,%)	1(1.2)	5(15.6)	1(2.9)	/	/	/	/
Seizure (n,%)	/	8(25)	1(2.9)	/	/	/	/
Falls (n,%)	/	/	/	/	/	/	1(20)
AF (n,%)	4(4.9)	/	1(2.9)	1(16.7)	/	4(20)	2(40)
Stroke/TIA (n,%)	/	/	/	/	/	2(10)	/

The device revealed no arrhythmia in **64 patients (35.2%)**, in 49 of these (76.6%) the monitoring is still ongoing.

The diagnostic yield was similar in pts with or without competing diagnoses (42% vs 33%, $p=0.07$).

Conclusion I

- According to the literature, in patients with unexplained syncope the ILR has revealed an arrhythmia in **the 33% of the cases, an asystole in the 51.9%;**
- ILR was useful also in **not-syncopal TLoC,** detecting an arrhythmia in the **25%** of the patients with **suspected epilepsy** and in the **34%** of those with **unexplained falls;**

Conclusion II

- Atrial fibrillation was confirmed in **all** the patients in whom was initially suspected, moreover in the **66.7%** of those with **cryptogenic stroke** and as an **additional diagnosis** in those who underwent the implantation for other purposes.
- The device allowed to exclude an arrhythmic mechanism in patients without arrhythmia during monitored spontaneous relapses.

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Thank you for the attention

