An Introduction to Holter Reading

EVAN LOCKWOOD

Indications

Assess symptoms possibly related to an arrhythmia
- syncope or presyncope
- unexplained recurrent palpitations (especially if occurring daily)

Risk assessment in asymptomatic patients
- hypertrophic CMO, Brugada, Long QT, ARVC
- post-MI with LV dysfunction
- thromboembolic event when silent atrial flutter or AF are suspected

Efficacy of AAD
- Class I AAD in pre-excitation

Assess the function of a pacemaker or ICD

Assess for silent ischemia

Approach

1	Dominant rhythm
2	Average and extreme rates
3	Ectopy (atrial/ventricular)
4	Tachyarrhythmias VT, SVT, Afib, Aflutter, AT, SVT, VT
5	Bradyarrhythmias Sinus pauses
6	Blocks AVB, BBB
7	ST/T wave changes
8	Symptoms Comment on every symptom-rhythm correlation

Tips

p wave axis is never clear (defining 'true' sinus)

unless 12-lead ECG is available, use IVCD (vs. BBB)

PAC's/PVC's

per 24hrs	frequency	Descriptor
0		Absent
1-24	≤ 1/hr	Rare
25-249	1-10/hr	Infrequent
250-719	10-30/hr	Moderately frequent
720-1440	1/1-2min	Frequent
>1440	>1/min	very frequent

Wide Complexes

Unless there is 'certainty,' use term WCT

idiopathic VT's may start irregular, then regularize

really really wide QRS is likely VT

slow' WCT (100-140) are more likely stable VT

AV dissociation is very hard to see

if WCT starts as NCT then widens, it's not VT

Brady Tips

If you see a sinus pause, look very hard at preceding T wave for a 'hidden' PAC

2AVB1 is very common at night

SA blocks, type 1 and 2, are rare

2 to 1 AVB is more likely 2AVB2 if other conduction system disease

Pacing Issues

oversensing = underpacing

undersensing = overpacing

failure to capture issues...A and V

Mini-Consult

Recommend some general clinical management steps

(especially if the Holter was ordered by a Family Doctor)

Examples:

AFib - "I would recommend a stroke prevention strategy"
AFlutter with rapid rates - "I would recommend improved rate control"
SSS/AVB - "I would recommend consideration for a pacemaker"
Ischemia - "I would recommend further evaluation with an EST or referral to a cardiologist"