

Survey of Practice Regarding EEG Diagnosis of Non-Epileptic Attack Disorder (NEAD)

BSCN National Audit
November 2016

Role of Survey

- Share good practice without formally collecting prospective data
- Share knowledge
- See what else other people are doing
- See what the majority or significant minority are doing to justify own positions

Survey of Practice

- Number of centres participating = 53
- Note not all people were surveyed
- A representative from each department filled in the survey of practice (so called “form A”)

Guidelines

3 centres utilising published guidelines

- “ANS” guidelines

- Reference provided

Provocative techniques should be used for the diagnosis of psychogenic non-epileptic seizures
Benbadis

Provocative techniques should not be used for the diagnosis of psychogenic non-epileptic seizures
Leeman

Epilepsy and Behaviour 15(2009)

- Third centre – the guidelines were not provided

Local Audit

3 centres have performed local audits

Centre 1

- 51/60 referrals clinical impression of NEAD.
- 1/3 typical attack
- Frequent events increased chance of recording event
- 1/5 of people who had less than one event per month still had an attack

Centre 2

- Do activation techniques increase the seizure yield in patients admitted for video telemetry?
- 48 hour VT captured attacks in >2/3 patients in whom NEAD considered likely
- HV and PS not increase yield significantly

Centre 3

- Not enclose topic nor results of audit

Verbal Suggestion

- Survey of practice
- 31 of 53 (58%) centres indicated their use of verbal suggestion

Types of Verbal Suggestion

Definition uncertain – part of informed consent process?

- Elaboration of symptoms
 - 24/31 (77%)
- Indicating that a seizure may occur during the EEG
 - 28/31 (90%)
- Photic stimulation or hyperventilation may trigger event
 - 30/31 (97%)
- Commenting on possible sz manifestations
 - 22/31 (87%)
- *Not mutually exclusive*
- All four verbal suggestions used
 - 16/31 (51%)
- Three verbal modalities used
 - 9/31 (29%)
- Two verbal suggestion modalities
 - 3/31 (9.7%)
- One verbal modality
 - 3/31 (9.7%)

When was Verbal suggestion given?

- Before EEG
 - 31/31 (100%)
- During Resting Record
 - 24/31 (77%)
- Before Hyperventilation
 - 26/31 (84%)
- Before Photic stimulation
 - 25/31 (81%)
- *Not mutually exclusive*
- All four epochs
 - 17/31 (55%)
- In three epochs
 - 8/31 (26%)
- In two epochs
 - 4/31 (13%)
- In one epoch only
 - 4/31 (13%) (all before the EEG)

Ethical concerns regarding suggestion?

- 15/53 expressed ethical concerns
- 24/53 expressed no ethical concerns
- 12/53 “unsure”
- (remainder no opinion expressed)
- 9/15 nevertheless still indicated use of verbal suggestion techniques (Survey form A data)
- From the survey and prospective study (combining Form A & B)
- 11/15 centres did use suggestion techniques

Ethical concerns free text comments

- *“...not really, however some staff do not like doing it. Concern that atypical attacks may arise from suggestion...”*
- *“...feels uneasy about delivering suggestion to children as usually have other issues involved...”*
- *“..paediatric department. Suggestion used sparingly to avoid provoking atypical attack...children over keen to conform...”*
- *“..previously saline injection used. Stopped due to ethical concerns. Now verbal suggestion only at request of neurologist.*
- *“This centre feels that saline patch or injection would be unethical. All patients are treated the same, and **any suggestion is part of standard consent**”*
- *“..patient is informed that **PS and HV may evoke seizure as part of routine EEG consent..**”*
- *“..stick to telling patients the truth..”*
- *“..should not mislead patient. Verbally take control...”*

Other suggestion methods

- Saline on tongue noted in one centre.
 - Specialised clinic with
 - full consent commented
- Doctor present
 - 6/53
- Tilt table
 - 1/53
- To use provocation technique that patient feels is a trigger
 - 1/53
- No saline patches nor saline injections used
- Standardised script
 - 0/53

Assessing whether the captured attacks are representative of habitual events

- Ensuring the captured events fits with the description of the habitual events
 - 45/53 (85%)
- Discussing with patient whether typical
 - 46/53 (87%)
- Discussing with a witness who has seen habitual events
 - 45/53 (85%)
- Showing video to clinician, patient or relative
 - 23/53 (47%)

Assessment of the patient during an event?

- Speak to patient
 - 51/53
 - Testing cognitive function
 - 32/53
 - Forced eye opening
 - 18/53
 - Putting the arm over the head and see if it falls obeying gravity & checking for tone
 - 10/53
- 2 centres appeared to indicate passivity in their actions
 - Free text comments
 - Reassure patients
 - Check responsiveness + airway
 - Pulse and heart rate
 - Motor tasks
 - Squeeze hand to command

Training for the Caring of patients with NEADS

- Practitioner felt trained
 - 9/53
- “..part of general training..”
- Practitioners felt untrained
 - 34/53
- Unanswered in remainder

Adverse events and resultant changes in practice

- No adverse events
 - 31/53
- Patient injury
 - 9/53
 - 1/9 change of practice
 - New couch with longer cotsides
- Hospital admission
 - 11/53
 - change in practice 1/11 – Recline the patient to prevent patient sliding off chair
- Staff injury
 - 5/53 with no change in practice
- Equipment damage
 - 1/53 change in practice was not discussed
- Patient Complaint
 - 4/53
 - No change in practice

Safety Measures

- Alarms
 - 43/53
- Cotsides
 - 37/53
- Padding
 - 37/53
- Additional staff
 - 38/53

Conclusions regarding prevalence of verbal suggestion and nature of verbal suggestion used

Prevalence

- Verbal suggestion is used in **58%** of centres

Content of verbal suggestion

- The “acceptable” “verbal suggestion” - very commonly used from survey data
 - A seizure may occur during the EEG
 - Photic stimulation is a trigger
 - Hyperventilation is a trigger
- Commonly used
 - Patient explaining symptoms
 - Patient describing attack

Conclusions regarding ethical concerns

- Just $> 1/4$ expressed ethical concern
- Centres expressing ethical concerns still indicate use of verbal suggestion
- Majority of centres expressing ethical concern (survey and retrospective data) still use verbal suggestion (data from the prospective study) (11/15)
- This survey did not obtain the nature of the ethical concern.
- From the free text presume
 - Lying to the patient
 - Inducing non-habitual attacks
 - To be further discussed
- Concern of vulnerability to have disagreement of this nature within same department and nationally
 - (note 4/53 centres indicated an adverse event was of patient complaint)

Conclusions Regarding the Representative Nature of the Habitual Event

- Majority shown to clinician
- Or relatives – members of lay public
- Or patient
- Common sense would dictate that this is **good practice**
- Infrastructure requirements
- Provision of facility to do this
 - Eg videos on intranet that can be shown in the neurology outpatient clinic
- Recommend against memory sticks, CD/DVD etc....encrypted or otherwise

Assessment of the patient during the attack

- Most centres indicate interaction with the patient during the event
- Majority of centres
 - Verbal interaction
 - Interaction to assess patient responsiveness and cognition
- Motor testing for tone
 - 1/3 of centres

Obvious deficiencies indicated by the survey

- The majority of centres indicate a lack of training in the management of the patients with dissociative event
- Training regarding the interaction with patient during attack could be included in a training package