Psychiatric aspects of patients with the ICD

Post Implantable Defibrillator Shock Psychology Counselling

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Psychological aspects of ICD shocks

Choose the false statement

- ICD shocks are unpredictable, uncontrollable, painful and socially intrusive.
- Anxiety is a common psychiatric symptom
- Depression is a common psychiatric symptom
- Psychosis is a common psychiatric symptom
- Post traumatic stress disorder is a possible outcome
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Pts with ICD presenting to the psychiatrist

- About 50% no significant persistent problems
- Remainder have post-traumatic symptoms mostly due to multiple shocks (PTSD level 20%)
- anxiety syndromes
- maladaption to device due to local side effects
- dysphoria, depression; a few don’t want it
Potential presentation of psychosocial distress

**Depressive symptoms (18 – 41%):**
- Excessive sadness
- Anhedonia
- Increased or decreased appetite

**Anxiety (13 – 38 %):**
- Frequent worry
- Psychomotor agitation
- Muscle tension

**PTSD (20 %):**
- Re-experiencing
  - Avoidance
  - Hyper arousal
Most impact on quality of life in the ICD patient: Which is correct?

- Sense of security
- Supportive EP team
- Fear of shocks
- Number of shocks
- Energy level
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## Quality of Life Issues with the ICD

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Costs</th>
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</thead>
<tbody>
<tr>
<td>Source of security</td>
<td>Fear of shocks</td>
</tr>
<tr>
<td>Greater independence with activities</td>
<td>Fear ICD won’t work</td>
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<tr>
<td>“Lifesaver”</td>
<td>Avoidance behaviour (e.g., sexual activity) because afraid of shocks</td>
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<td>ICD vital to the patients’ well-being</td>
<td>Worry about battery failure</td>
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<tr>
<td></td>
<td>Increased reliance on medical services</td>
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Relationship Between Shocks and Psychological Adjustment

*Shocks & MHI - Psychological Distress at 12-months*

ANCOVA = p < 0.0001; Univariate planned contrasts - Amiod. > 0 shocks and 1-4 shocks; >= 5 shocks > 0 & 1-4 shocks
Psychological Distress Predicts Arrhythmias

- Number of studies from different countries demonstrated that patients with higher symptoms of depression/anxiety at time of ICD implant experience higher incidence of shock therapy over first year of follow-up.

- Largest study was of 645 patients and reported a hazards ratio of 3.3 (C.I. 1.1-86) for predicting time to first shock (Whang, 2005).
Common post traumatic symptoms in the ICD patient include: Which are incorrect?

- Hypervigilance, startle response
- Repeated recall of event
- Sleep more than usual
- Increased concentration
- Phantom shock
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**Criterion A: Exposure**

- Cardiac event, sudden cardiac arrest, ICD implantation, shock, or storm are perceived as deadly or threatening.
- There is a perception of fear, helplessness, or horror.
- Symptoms must be present for at least one month. Specify “acute” if symptoms have lasted fewer than three months and “chronic” if greater than three months.

**Persistent Re-experiencing**

- Recalling the cardiac event over and over.
- Dreaming about getting shocked.
- Truly believing or feeling shock is recurring (e.g. phantom shock).
- Exposure to cues that remind them of the event (e.g. couch they were on when shocked) creates psychological distress.
- Exposure to cues that remind them of the event (e.g. heart racing) causes body to react.

**Persistent Avoidance**

- Avoidance of discussing the event (this may include avoidance of office visits or repeated no-shows).
- Cannot remember the event (e.g. SCA or shock).
- Avoid engagement in activities due to fear of shock.
- Feeling estranged from family or friends following cardiac trauma.
- Restricted range of affect (not able to express a range of emotions) following SCA or shock.
- Belief that shock is an indicator of cardiac health and foreshortened future.

**Increased Arousal**

- Following cardiac trauma (e.g. surgery, SCA, shock, storm):
  - Trouble falling or staying asleep.
  - More irritable and angry.
  - Difficulty concentrating.
  - Exaggerated startle response.
  - Hyper-vigilant: preoccupied with heart rate, gastrointestinal and chest pain, and other bodily sensations.
Long-term mortality risk in patients with an implantable cardioverter-defibrillator stratified for posttraumatic stress disorder (PTSD) symptoms (adjusted survival curve) adjusted for age, sex, survey, PTSD, anxiety, depression, prior resuscitation, number of shocks, left ventricular ejection fraction, and time of implantation before enrollment Ladwig 2008
Risk markers for Psychosocial Distress in ICD patients

- <50 yrs of age
- Female
- Premorbid psychiatric diagnosis
- Low social support
- >5 defibrillations (appropriate or inappropriate)
Which approach is preferable?

- Screening questions and questionnaires for depression and anxiety, mental health collaboration
- Anxiety, depression, PTSD and ICD questionnaires
- Screening questions for depression, anxiety and PTSD, mental health collaboration
- Anxiety, depression, PTSD and ICD questionnaires and mental health collaboration
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Suggested Questions for Use in Electrophysiological Clinics to Establish Patient Need for Mental Health Care

- **Depressive disorder**
  - Have you been feeling depressed, down or hopeless, for most of the past month?
  - Do you find that you no longer enjoy activities you used to look forward to?

- **General anxiety/panic symptoms**
  - Do you feel nervous or jittery most of the time?
  - Do you find that you cannot stop worrying about the potential for future shock?
  - Do you have periods of intense anxiety or panic that occur out of the blue?
Suggested Questions for Use in Electrophysiological Clinics to Establish Patient Need for Mental Health Care

- Post traumatic stress disorder
- During shock/arrest did you fear loss of security or safety, bodily injury, or death?
- Do you have nightmares or flashbacks as if you are having the shock/arrest again?
- Have you been avoiding things that remind you of the shock, such as activities that increase heart rate or places where you were shocked?
- Do you find that you are always on the lookout for an increased or irregular heart beat?
Suggested Brief Screeners for Use in Electrophysiological Clinics to Establish Patient Need for Mental Health Care

- **General Screeners**
  - Beck Depression Inventory, 2nd edition
  - Centers for Epidemiological Studies Depression Scale
  - Beck Anxiety Inventory
  - Zung Self-rating Anxiety Scale
  - Impact of Events Scale, revised
  - Posttraumatic Stress Disorder Checklist

- **ICD specific screeners:**
  - Florida Patient Acceptance Scale
  - Florida Shock Anxiety Scale, ICD and Avoidance Survey, Cognitive Appraisal of ICD Discharges
  - The ICD Concerns Questionnaire
  - The Implanted Device Adjustment Scale
Supportive communication: Which statements are incorrect?

- What are your concerns about having an ICD?
- “Sometimes patients start to change what they do because of the shocks.” “Is this something you have done?”
- “It’s unusual to feel stressed about the ICD”
- “Can we discuss your feelings about the ICD?”
- “We want you to take a passive role in your care.”
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Supportive Communication

1. Define the problem
   • “What are your concerns about having an ICD? “

2. Provide information
   • “Sometimes patients start to change what they do because of the shocks.” “Is this something you have done?”

3. Create team support
   • “We want you to work with your treatment team to help you adjust to the ICD as quickly as possible.”
Supportive Communication

4. Normalize fears
   • “It’s a normal reaction to feel stressed about the ICD”

5. Elicit emotional release
   • “Can we discuss your feelings about the ICD?”

6. Instill hope
   • “Over time, you will get used to the ICD”

7. Encourage patient to take action
   • “We want you to take an active role in your care.”
Cognitive therapy for ICD patients with psychological distress: Which statement is incorrect?

- Education
- Relaxation techniques
- Deal with cognitive distortion
- Perceived control is a key concept
- None is incorrect
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Cognitive-Behaviour Therapy (CBT) for Psychological Distress in ICD Patients

- Improvement in depression and anxiety in the CBT group vs usual care group at follow-up.
- Subgroup who benefited the most were those who received shocks.
- Women scored worse than men on all psychological and QOL variables (p < .05) but improved more in depressive symptoms and Mental Component Summary of SF-36.
- Greater improvement with CBT on PTSD total and avoidance symptoms for men and women combined (p < .05)

How multiple shocks cause serious distress

Characteristics of the event that increase stress:

- Controllability – behavioural and cognitive
- Predictability
- Severity of threat
- Embarrassment
- Degree of adversity (e.g. pain)
- Inescapable
CBT for ICD Recipients

- Education about panic symptoms with focus on distinguishing panic symptoms from arrhythmia symptoms per se.
- Learn diaphragmatic breathing
- Learn muscle relaxation
- Avoid escape response when feeling anxious or having palpitations (practice relaxation instead).
- Challenge catastrophic thinking (“The ICD won’t work!”)
- Cognitive interventions to control worry.
Establishing and using mental health collaboration for ICD patients presenting to the EP clinic with psychological distress such as posttraumatic stress disorder.

Sears et al Circ Arrhythm Electrophysiol 2011
Hospital anxiety and depression (HAD) scores for anxiety in the ICD patient.