Post-traumatic Stress Associated with Cancer

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Disclosures

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• Matt Doolittle
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People who experience trauma may or may not experience long-term psychiatric symptoms

- Those who do may or may not have symptoms that are closely related to their history of trauma

- When there is a close relationship, it may or may not be consistent with PTSD
Trauma as a “Reason”

• Psychiatric diagnosis does not assign “fault” in PTSD or in any other syndrome/diagnosis
So much less to memorize

1980 - PTSD

1994 – Life Threatening Illness
Diagnostic Criteria

• Exposure to actual or threatened death, serious injury, or sexual violence
  – Direct experience
  – Witnessed in person
  – Learn about events affecting close friend or family member (for death, must have been violent or accidental)
  – Repeated or extreme exposure to aversive details (e.g. paramedic frequently responding to car accidents)
Diagnostic Criteria

- Intrusion / Re-experiencing
  - Memories
  - Dreams
  - Dissociation (e.g. “flashbacks”)
  - Psychological distress from trigger/reminder
  - Physiological reaction to trigger/reminder
Avoidance of triggers/reminders
  – Avoidance of associated memories, thoughts, feelings
  – Avoidance of external triggers (people, places, objects, etc.)
    • BCCA, appointments, medications, treatments
Diagnostic Criteria

• Associated changes in cognition and mood
  – Inability to remember important aspect of traumatic event(s) – lack of memory may not be trauma related in severe illness
  – Persistent negative beliefs about oneself, others, or the world
  – Distorted thoughts about the cause or consequence of the event(s) that lead to blaming self or others – common in cancer
  – Persistent negative emotional state (e.g. fear, anger, guilt, shame)
Diagnostic Criteria

• Associated changes in cognition and mood (Continued)
  – Reduced interest in activities
  – Feeling detached or estranged from others
  – Inability to experience positive emotions
Diagnostic Criteria

• Changes in arousal or reactivity
  – Irritable or angry outbursts without provocation
  – Reckless or self-destructive behavior
  – Hypervigilance – may be focused more internally when trauma is severe illness
  – Easy to startle
  – Difficulty concentrating
  – Disturbed sleep (illness related)
Diagnostic Criteria

• Lasts for more than 1 month
• Clinically significant distress or impairment
• Not due to medications, drugs, alcohol
• 10 – 20% of patients with cancer meet criteria for PTSD
• About double the lifetime risk within the general population
• Studies focused on cancer survivors estimate prevalence of 3 – 5%
• Up to 50% of young adult survivors may experience post-traumatic stress

Rourke et al., 2007; Stuber et al., 2010; Doolittle & DuHamel, 2015
Ongoing Trauma in Survivorship

- Threat of future cancer or recurrence
- Threat of late effects
- Current late effects
- Reminders of cancer
- Social losses
- Cognitive losses
- Reproductive capacity

Place of safety is not ensured, possibly not even likely for some

Schwartz et al., 2015
Symptoms and Behaviors in Post-traumatic Stress

- Negative ruminations
- Intrusive thoughts
- Nightmares
- Increased arousal when talking about cancer
- Avoidance of healthcare settings
- Hypervigilance of body systems
- Sense of foreshortened future

Schwartz et al., 2015
Risk Factors

• Information is minimal in oncology populations
• In women with breast cancer:
  — Prior diagnosis of PTSD
  — Prior diagnosis of other anxiety disorders
  — Prior trauma
• Severity of cancer is not a strong predictor for PTSD

Andrykowski & Cordova, 1998; Butler et al., 1999; Shelby et al., 2008
In the general population, other risk factors include:
- Female gender
- African American, Native American, Latino
- Lower Education

Increased risk in non-Caucasians may hold true in cancer, other risk factors not clear

Purnell et al., 2011
Risk Factors – Young Adult Survivors

• Female gender
• Lower socioeconomic status
• Unemployment
• Lower education level
• Being single

Rourke et al., 2007; Stuber et al., 2010; Schwartz et al., 2015
Risk Factors – Young Adult Survivors

• Variables that are less predictive:
  – Kind of cancer
  – Form of treatment
  – Age at diagnosis
  – Time since treatment

Rourke et al., 2007; Stuber et al., 2010; Schwartz et al., 2015
• Most cancer survivors are psychologically well adjusted
• Some also show post-traumatic growth where views of self, relationships, and future plans may be enhanced/improved compared to others

Barakat et al., 2006; Schwartz et al., 2015
Differences with Trauma from Cancer

• Internal rather than external event
• Initial internal event precipitates a possible series of difficult external events
  – Symptoms
  – Communication of diagnosis
  – Side effects of treatment
  – Reaction of friends and family
  – Ongoing threat of progression or recurrence

Doolittle & DuHamel, 2015
In 238 post-ventilated ICU patients:

- Rate of diagnosable PTSD was 9.2% at 3 months post-ICU
- Strong association between PTSD and recall of delusional memories and 57% of patients had delusional memories (e.g. staff trying to kill them)

Jones et al., 2007
Family Distress - Delirium

![Bar chart showing distress levels for Patients, Spouses, and Nurses.]

- Patients: 3.2
- Spouses: 3.75
- Nurses: 3.09

Sources:
- Breitbart et al., 2002
- Bruera et al., 2009
PTSD in Family Members

- Study of 65 mothers of childhood cancer survivors
  - 6.2% had PTSD
  - Additional 20% had subclinical PTSD

Manne et al., 1998
Pick medications where side effects are helpful (e.g. increased appetite)

- SSRIs (e.g. sertraline, escitalopram)
  - Low dose fluvoxamine for nightmares
- SNRI (e.g. venlafaxine, duloxetine)
  - May help with pain

- Mirtazapine
  - May help with sleep, appetite, and nausea
Atypical antipsychotics (e.g. olanzapine, quetiapine)

- Olanzapine may help with sleep, nausea, and appetite
Tamoxifen

- Tamoxifen converted to active metabolite endoxifen via 2D6, so strong 2D6 inhibitors reduce effectiveness
- Strong 2D6 inhibitors: paroxetine, fluoxetine, sertraline, bupropion
- Weak 2D6 inhibitors: citalopram, escitalopram
- Very weak to no inhibition: venlafaxine, mirtazapine
• Procarbazine can act as a monoamine oxidase inhibitor (MAOI)
  – Need to be cautious with other serotonergic medications (e.g. SSRIs) to prevent serotonin syndrome
• Cognitive Behavioral Therapy (CBT)
  — Relationship between thoughts, feelings, and behaviors
  — Challenge “cognitive distortions”
  — May include exposure therapy
  — Some evidence for more sustained improvement in cancer patients when compared to supportive counseling
• Mindfulness-based stress reduction