Side effects from cancer and cancer treatment

Speakers: A/Professor Janette Vardy, Sue Butler, Dr. Haryana Dhillon, Dr. Prunella Blinman

When: 11th May @ 5.00 - 6.30 pm
Where: Medical Education Centre - Lecture Theatre 1, Concord Hospital
(entrance off Hospital Rd through Gate 3)

For registration and information email survivorship@sswhs.nsw.gov.au or call Mike on 9767 6105.
Presentations made by:

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at the **May 2015 Public Forum**
of the **Sydney Survivorship Centre.**
Cancer Related Fatigue

Janette Vardy  MD, PhD, FRACP
Concord Cancer Centre
University of Sydney
Most common and distressing patient-reported symptoms associated with cancer and its treatment

Impacts on physical and social function, psychological distress and quality of life (QOL).
Cancer Related Fatigue

NCCN expert panel on fatigue

“a distressing, persistent, subjective sense of tiredness or exhaustion related to cancer or cancer treatment that is not proportional to recent activity and interferes with usual functioning”. 
Cancer Related Fatigue (CRF)

- In contrast to normal fatigue, CRF persists despite adequate rest or sleep
Cancer Related Fatigue

- Most common in those undergoing chemotherapy or radiotherapy, or those with advanced cancer
- Persists in ~30% after finishing treatment despite no evidence of disease recurrence
- Higher in breast cancer survivors 1-3 years after chemotherapy than healthy controls
- Higher in chemotherapy survivors than non-chemotherapy survivors
Mechanisms

- Cause is unknown but likely multi-factorial:
  - Anemia
  - Inflammation – cytokines
  - Disruption to circadian rhythm – body clock
  - Muscle metabolism
  - Mood
  - Adrenal function
Colorectal Cancer (CRC) Study

Followed patients with 360 patients with bowel cancer up to 2 years after diagnosis:

Compared patients with:

- early stage bowel cancer: who received chemo with those who did not
- Advanced bowel cancer
- Healthy controls (no cancer)
Average fatigue scores

Less fatigue

Months

Gr 1A
Gr 1B
Gr 2
HC

0 0 0 0
6 6 6 6
12 12 12 12
24 24 24 24

0 10 20 30 40 50 60 70 80 90

0 6 12 24

Gr 1A
Gr 1B
Gr 2
HC

Less fatigue
Results

- At baseline fatigue greater in CRC patients than healthy controls
- By 6 months fatigue in non-chemo CRC patients same as healthy controls
- CRC patients who received chemotherapy have more fatigue at 12 and 24 months
- Fatigue associated with: QOL, mood and cognitive symptoms
Fatigue: Gender and Age

- Women report more fatigue than men
  57% vs 45%,  \( p=0.005 \)

- No difference by age: >60 vs ≤60 years
  53% vs 47%
Predictors for lasting fatigue

Increased fatigue at 6 and 12 months:
- Baseline fatigue
- Anxiety and depression
- Poorer QOL
- Cognitive symptoms
- Co-morbidities
Screening for fatigue and what is contributing to it

- Patient reported fatigue level
- Medications: pain meds, sleeping tablets,
- Alcohol and substance abuse
- Nutritional status
- Deconditioning
- Co-morbidities: cardiac, thyroid, adrenal, liver and renal function
WHAT TREATMENTS WORK FOR CANCER RELATED FATIGUE?
Physical Activity

Recommendations:

- 150 minutes/week of moderate aerobic activity (e.g. brisk walking, cycling, swimming)
- 2 – 3 sessions /week of strength training
Safety of Exercise

Australian and American College of Sports Medicine and cancer groups all state:

- Exercise training safe during and after cancer treatment
- Improvements in physical functioning, quality of life and fatigue
Why aren’t survivors active?

Fatigue

Reduction in physical activity

Reduced physical function
Psychosocial interventions:

1. Cognitive behavioural therapy and behavioural therapy programs eg. helps individuals identify unhelpful thoughts and behaviours and learn or relearn healthier habits and skills.

2. Psycho-educational therapies eg. internet programs giving information on CRF, pain control, distress management, sleep hygiene, nutrition.
Mind-body Interventions

Some evidence that:

- Mindfulness, yoga and acupuncture can reduce CRF

More research needed for:

- Massage, music therapy, relaxation, reiki and qigong
Pharmacological Interventions

For advanced cancer:
- Psychostimulants can help
  - Eg. methylphenylpydate, modafinil

Disease free post treatment:
- Limited evidence that these work
Programs

- Referral to providers who specialise in cancer
- Psychology team at Concord
Depression and Anxiety after treatment ends

Sue Butler Clinical Psychologist
“Finding a New Normal”

- Fatigue (tiredness)
- Poor memory/concentration
- Changes in body image
- Sleeping difficulties
- Pain
- Changes in sexuality, and bodily functioning
- General unwellness
“What if?”
Common triggers

- Anniversary events
- Birthdays
- Follow up visits
- Medical tests
- Illness of family member
- Cancer recurrence in someone you know
- Symptoms like the ones you had before
- Death of someone who had cancer
Exercise, Relax, Meditate
Talk it out...
Seek Help if you...

- worry or feel anxious or down most times.
- Frequently feel sad, teary, or irritable.
- concentrate poorly or are more forgetful.
- have difficulty making decisions.
- feel hopeless or fearful about the future.
- have trouble sleeping or eating well.
- don’t participate in activities you usually enjoy.
Facing Loss
Grief vs. Depression

Grief:
- Acute transient sadness focused on the loss
- Sadness may be ongoing but less intense after about six months

Depression:
- General pervasive sadness and lack of interest in formerly pleasurable activities
- Irritable mood
- Sleep difficulties
- Focus on own failures
Find Support
Sleeping well after cancer

Sydney Survivorship Centre & Concord Cancer Centre Public Forum
11 May 2015

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What is sleep disturbance or insomnia?

- Insomnia is
  - a heterogeneous complaint
  - reflecting dissatisfaction with duration, efficacy, or quality of sleep.
What is sleep disturbance or insomnia?

- Characterised by:
  - difficulties falling asleep (sleep onset insomnia),
  - trouble remaining asleep with prolonged nocturnal waking (maintenance insomnia),
  - early morning waking with inability to resume sleep (late insomnia), or
  - non-restorative sleep.
What is sleep disturbance or insomnia?

- Insomnia may be classified as mild, moderate, or severe.
- Severe insomnia = nightly complaint of
  - insufficient or non-restorative sleep,
  - accompanied by severe impairment of social or occupational function,
  - and is associated with restlessness, irritability, anxiety, daytime fatigue, and tiredness.

The plan to increase productivity by canceling coffee breaks flopped.
Of sleep and other things...

- Sleep disturbance is commonly associated with:
  - pain,
  - fatigue,
  - depression,
  - loss of concentration

- Limiting ability to functional on a daily basis.
Is sleep disturbance a problem after cancer?

- People with cancer commonly have trouble sleeping
- Between 18 – 50% people with cancer report sleep problems
- More common in women treated for breast cancer
- Most common in people with lung cancer
- More people with cancer have trouble sleeping than general population
  - About 40% of a mixed cancer group vs 15 % of healthy control group
- Appears to be sustained problem
What does sleep disturbance after cancer look like?

- Survey of 982 people going to the cancer clinic

- Sleep problems reported:
  - multiple awakening (76%)
  - duration >5 months
  - 48% reported onset around time of cancer diagnosis

- Contributors to insomnia:
  - Thoughts
  - Concerns
  - Pain/discomfort

*Davidson Soc Sci & Med 2002*
What happens to sleep patterns in first 18 months?

- Interviewed 962 people with cancer about sleep problems
- Prevalence of insomnia symptoms decreased over time
  - sig. btw T1 & T2, T3 & T4
  - Highest in breast (42-69%)
  - Lowest in prostate (25-38%)

- Conclusions:
  - Insomnia is highly prevalent esp. at time of surgery (diagnosis)
  - Insomnia decreases over time
What happens to sleep during chemotherapy?

Savard et al. Sleep 2009 32(9):1155-60

- Assessed sleep-wake activity rhythms before & during chemotherapy in 95 women with breast cancer

- Suggest first administration of chemotherapy associated with transient disruption of sleep-wake rhythm

- Repeated administration results in progressively enduring impairments in sleep-wake activity rhythms.
How Can I Cure Insomnia?
Sleep Hygiene
Sleep Hygiene
Sleep Hygiene
Sleep Hygiene

"No wonder you have insomnia... lying there awake all night."
Interventions

- Pharmacotherapy
- <15% of people with chronic insomnia receive treatment
- Pharmacotherapies most commonly prescribed for insomnia/sleep complaints
- No evidence for long-term benefit
Interventions

- Exercise/physical activity
- Cognitive behaviour therapy

Kevin found a cure for his insomnia.
Cognitive behaviour therapy (CBT) is a well-established treatment for insomnia not related to a medical or psychological condition. Meta-analysis examining the efficacy and durability of psychological treatments for chronic insomnia:

- reported reliable change in sleep latency and time awake after sleep onset,
- average effect sizes of 0.88 and 0.65 respectively.
- After treatment subjects were better off than controls 81% and 74% of the time.
Internet intervention - SHUTi
Take home messages

- Change in sleep patterns (disturbance) are common around time of cancer diagnosis
- Chemotherapy progressively adds to this disturbance
- May spontaneously recover, BUT without intervention many people experience ongoing sleep problems
- Try sleep hygiene strategies
- Ask for referral to a clinical psychologist for CBT
- Ok to use sleeping tablets occasionally BUT they don’t cure sleep problems
Thank you

Insomnia sharpens your math skills because you spend all night calculating how much sleep you'll get if you're able to "fall asleep right now."

someecards user card
Chemotherapy-induced peripheral neuropathy
(AKA nerve damage)

Dr Prunella Blinman
Survivorship Centre Forum
17th May, 2015
Mr Smith

- 69 year old male
- Rectal cancer 2011 → radiotherapy & surgery
- Recurrence 2013 in lung → surgery
- ? Chemotherapy

- XELOX (Oxaliplatin + 5-FU)
- 6 months
- 8 x 3 week cycles
- IV injection & tablets for 2 weeks
Side effects of XELOX

- Feeling tired
- Feeling sick & vomiting
- Problems with blood count
- Diarrhoea
- Red skin on hands & feet
- Sensitivity to cold
- Numbness, pins & needles in fingers & toes
Mr Smith - on chemo

1st cycle painful to hold his cold drink & then to drink it
2nd cycle 5FU only so he could enjoy his trip to QLD
4th cycle some numbness 1 week
7th cycle numbness, pins & needles ‘tips of 3 fingers’ 2 weeks
8th cycle 5-FU only
Mr Smith- after chemo

- Distressed +++
- Severe pain & numbness in feet & hands
- Worse at night & walking
- Interrupting sleep & function
- 10/10 severity

Severe chemotherapy-induced peripheral neuropathy (from oxaliplatin)
What is peripheral neuropathy?

= symptoms caused by damage to the nerves that are away from the brain and spinal cord in *peripheral* (not central) nerves that carry sensations to brain & control movement of arms & legs.
Symptoms of peripheral neuropathy

- Numbness, burning pain, pins & needles
- Hands and feet
- Hard to do up buttons
- Dropping things
- Falls
- Loss of muscle mass
Features of peripheral neuropathy

- Can begin any time after treatment starts
- Can worsen after treatment is stopped
- Usually improves with time
- But persists lifelong in some patients
Causes of peripheral neuropathy

- Platinum drugs (cisplatin, oxaliplatin, carboplatin)
- Taxanes (paclitaxel, Abraxane, docetaxel)
- Other e.g. diabetes, thyroid disease, B12 deficiency, alcohol....
Can peripheral neuropathy be prevented?

- Vitamin E
- Calcium & magnesium
- Medications eg anti-epileptics, antidepressants
- Glutathione
- No

- Change the way chemotherapy is given
What can I do for my peripheral neuropathy?

- Avoid things that make it worse
- Minimise alcohol
- Control sugars if you have diabetes
- Wear gloves eg working in gardens
- Take care of your feet
- Mobility aids as needed
- Night lights
- Be careful with heat eg hot water
How else can peripheral neuropathy be treated?

- Information about likely course
- Consider neurology referral
- Medications
  - anti-depressants
  - pain medications
- Supportive
  - occupational therapy
  - physiotherapist
  - nutrition
Mr Smith

- Commenced ‘Lyrica’ (pregabalin)
- Good symptomatic relief
- Slowly improving eg only pain if walks a long way
- Remains on Lyrica

- Progress CT scan- liver spot suspicious for cancer
Conclusion

Peripheral neuropathy
- is a common side effect of chemotherapy
- may interfere with treatment
- usually improves with time
- treatment supportive & aimed at symptoms