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FULLY BOOKED

Saturday, August 13, 2016

(Room 1)

14:00 - 14:55 WS #114: Common Primary Care Problems in Patients on Cancer Treatments (Not Repeated at 15:05pm)

Common Primary Care problems in patients on cancer treatments

Dr. Chris Jackson
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Overview

- Work-up of cancer of uncertain primary
- Complications while on treatment
 - Diarrhoea
 - Skin reaction
 - Nausea
 - Neutropenia
 - Fatigue
 - Vascular access device problems and thrombosis
- Complications of disease
 - Hypercalcemia
 - Spinal cord compression
 - SVCO
- Late effects and survivorship

Not intending on covering

- Metabolic and bone effects of treatment
 - You know more about this than me
- Detection of late effects
 - ditto
- Screening

Cancer of uncertain primary



Cancer of unknown primary

- Who is the patient (demographics)?
- What are their risk factors? (including family history)
- What are their symptoms?
- What are their clinical findings (lymph nodes are often the clue)?
- What is the role of serum tumour markers?

Think of common things

2009 NZ Cancer Registrations

Men
11 151

Women
9724

Prostate	30%
Colon & rectum	13%
Melanoma of skin	11%
Lung & bronchus	10%
Non-Hodgkin lymphoma	4%
Kidney	3%
Leukaemia	3%
Urinary bladder	2%
Stomach	2%
Head & Neck	2%
All Other Sites	20%



- 28% Breast
- 14% Colon & rectum
- 10% Melanoma of skin
- 9% Lung & bronchus
- 4% Uterine corpus
- 3% Non-Hodgkin lymphoma
- 3% Ovary
- 3% Leukaemia
- 2% Pancreas
- 2% Kidney
- 22% All Other Sites

*Excludes basal and squamous cell skin cancers.

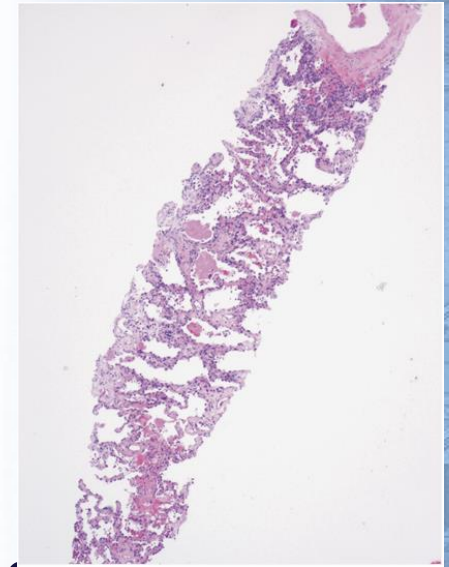
Source: Cancer: New Registrations and Deaths. MOH 2012

Cancer – unknown origin

- Imaging
 - CXR
 - CT chest, abdo, pelvis
 - Targeted blood tests
 - Should everyone be biopsied?

And then (almost) always **BIOPSY** something (only pathologists diagnose cancer)

- The bigger the better of the easiest thing to get at
- Further investigations then guided by pathologist (core for IHC) where appropriate
- Also important for treatment options with targeted treatments



Tumour markers

- Generally neither sensitive or specific enough to be diagnostic
- So CEA elevated in many cancers
- Ca 125 elevated whenever peritoneum infiltrated
- Best used to follow up known cancers (progression or relapse)
- Exceptions – HCG, AFP, PSA

Complications while on treatment

Diarrhoea

- Radiation, chemotherapy, immunotherapy
- History:
 - Volume, frequency, character of stool
 - Comorbidity, consequence (got to know baseline)
- Investigate
 - Abdo x-ray
 - Stool culture
 - FBC, U+E
- Management:
 - STOP THE DRUG
 - Treat with ABX
 - Loperamide, codeine, isogel, steroid foam, other weird and wonderfals eg concentrated isogel, marshmallows, grated apples
- CONSULT

Skin Reaction: Radiation

- Erythema
 - Pink, mildly swollen skin with sensation of Pruritus or burning
- Dry Desquamation
 - Epidermal basal cells partially sloughed
 - Skin dryness, peeling or Scaling
 - Hyperpigmentation
- Moist Desquamation
 - Epidermal basal cells completely sloughed
 - Blisters
 - Serous discharge
 - Neuropathic pain



Skin reaction: chemotherapy



Nausea

- 60 year old with lung cancer and persistent nausea
- Medications - diclofenac + MST for one month

Differential diagnosis

- Gastric irritation
- Morphine (drug) effect
- Cerebral metastases
- Hypercalcaemia
- Hyperuricaemia
- Hepatomegaly
- Swallowing blood/mucus
- Constipation



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Management

- Dexamethasone – prevention
- Aprepitant – prevention
- Metoclopramide
- Cyclizine
- Ondansetron (wafers)
- 24 hour pump
- Methotrimiprazine / Olanzapine
- Scopoderm
- (Lorazepam / clonazepam)

Chemotherapy complications

Febrile Neutropenia

- Definition - Neutrophils < 0.5 and $T > 38$ (NB unwell and afebrile)
- Mortality rates 2 - 21%
- Treatment should commence within 30 minutes if suspected
- Note higher risk of mortality in young adults

Febrile neutropenia

- Common sites:
 - Skin, urine, chest, vascular access device, tumour specific (eg cholangio), GI, CNS
 - Many are unknown
- Culture everything
- Commence iv fluids
- Early antibiotics (before they go anywhere)
- Don't wait for FBC if patient unwell
- Monitor frequently at the start

MASSC neutropenic score

- Solid tumour/ lymphoma no previous fungal infection = 4
- Outpatient = 3
- Age < 60 = 2
- Burden of illness (symptoms; nil = 5, mod = 3)
- No hypotension (systolic > 90) = 5
- No COPD = 4
- No dehydration = 3

Low risk of severe sepsis if total score 21 or more

Treatment

- Broad spectrum antibiotics
eg Tazocin +/- gentamicin,
cefipime or 3rd generation cephalosporin,
vancomycin + gentamicin
- + Metronidazole if diarrhoea
- Change antibiotics only if clinical deterioration.
Maintain broad spectrum even if bug grown (but include appropriate AB)

Fatigue

- 25% of breast cancer survivors report fatigue sufficient to impact on life
- May persist for up to 10 years
- Multi-dimensional –correlated with depression, catastrophizing as a coping mechanism, cardiovascular problems



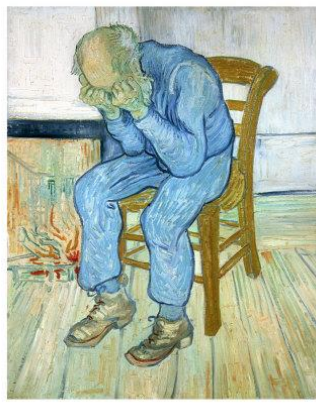
Fatigue

- Management
 - assess for physical problems
 - hypothyroid (post radiotherapy)
 - hypogonadism (eg testicular cancer survivors)
 - Anaemia
 - Cardiac problems
 - Pain
 - Cancer recurrence
- Maintenance of regular exercise, graduated exercise programs
- Psychologic education



Depression + anxiety

- Initial existential crisis
- On treatment – helplessness, loss of social contact
- Post treatment – vulnerability and anxiety
- 25% long term depression
- Educational programs reduce depression
- Anti-depressants work



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Hypogonadism in males

- Sub-clinical hypogonadism is prevalent following chemotherapy – up to 50% after testicular cancer.
- Low-normal testosterone levels but gonadotrophins are elevated (esp LH)
- Clinical hypogonadism in approximately 10%
- May contribute to the metabolic syndrome and replacement testosterone is indicated

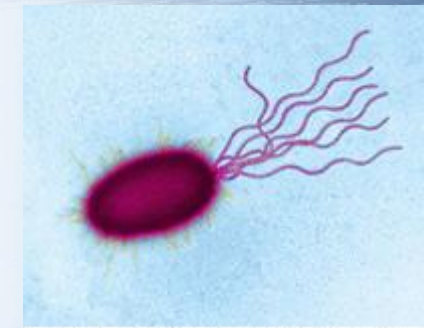
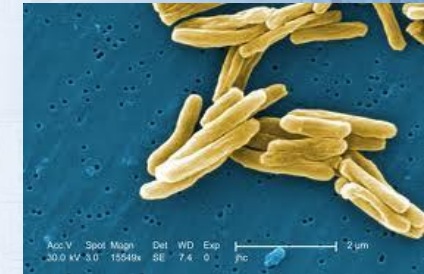
Vascular access devices

- Commonly used in oncology and haematology due to frequent chemotherapy and need for supportive cares
- Risk of thrombi
 - 27-66% asymptomatic
 - 0.3-28% symptomatic
- Can remain in situ despite thrombus if anti-coagulated (and they still work)
- No evidence for prophylactic anti-coagulants



Vascular access infections

- No evidence for prophylactic antibiotics
- Coagulase negative staph infections most frequent
- Can retain device and treat with antibiotics
- Consider removal if
 - ongoing bacteraemia after 48hr ABs
 - Port pocket or tunnel infections
 - Unlikely to eradicate *S aureus*, VREs, fungi, *Pseudomonas*, *Mycobacteria*



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Complications of disease

Hypercalcaemia

- Squamous cell carcinoma lung
- Renal cell cancer
- Breast cancer
- Myeloma
- iv fluids (normal saline)

Hypercalcaemia

- Symptoms - nausea, anorexia, constipation, thirst, polyuria
- Severe - dehydration, confusion, cardiac arrhythmias
- Key question - Is it appropriate to treat this?

Hypercalcemia: treatment

- Bisphosphonates
 - iv pamidronate standard - 60-70% will normalise calcium in 7 days
 - Note resolution of calcium may precede confusion resolving
 - iv zoledronate - 15 minute push, more potent (higher response, 75+%)

Spinal cord compression

- Number one of Oncologic medicolegal claims
- Most common sites:
 - Breast, lung and prostate cancers most common cause
- Clinical symptoms:
 - 90% have preceding back pain (usually precedes neuro)
 - Then sensory change (ascending) then motor



Examination

- Power
- Reflexes (Biceps; C5, triceps; C7, knee; L3, Ankle; L5)
- Sensation - T4 (nipples), T10 (umbilicus), L1 (groins), L3 (knee), L5 (dorsum foot)
- Anal tone/sensation

Spinal cord compression treatment

- Dexamethasone 8 – 16mg stat, then 4mg QID
- RT vs surgery (+ RT)
- Indications for surgery – limited disease, expected survival > 3 months, no prolonged paraplegia (< 48 hours)

SVCO (now quite rare)

- **Pathophysiology**

- Superior Vena Cava Obstruction to flow
 - Mediastinal mass compressing superior vena cava
 - Vena cava thrombosis
- Azygous vein may provide some collateral drainage

- **Symptoms**

- Dyspnea (50%)
- Neck and facial swelling (40%)
- Swelling of trunk and upper extremities (40%)
- Choking sensation
- Head fullness or pressure sensation
- Headache
- Chest Pain
- Cough
- Lacrimation
- Dysphagia

- **Signs**

- Thoracic vein distention (65%)
- Neck vein distention (55%)
- Facial edema (55%)
- Tachypnea (40%)
- Plethora of the face and Cyanosis (15%)
- Edema of upper extremities (10%)
- Paralysis of Vocal Cords (3%)
- Horner's Syndrome (3%)
- Distended antecubital veins

- Management
 - Identify mass etiology
 - Supportive care
 - ABC Management
 - Corticosteroids
 - Diuretics
 - Elevate the head of the bed
 - Reduction in mass size
 - Radiation Therapy
 - Chemotherapy
 - Surgical decompression
 - Consider Anticoagulation
 - Intravenous stenting

LATE EFFECTS OF TREATMENT

Cardiovascular morbidity



- Patients treated with doxorubicin have long term (10+ years) risk of cardiomyopathy (breast, Hodgkins)
- hypertension risk is increased after testicular cancer
 - ?chemo induced renal damage
- Increased IHD after mediastinal radiotherapy

Metabolic Syndrome

- Hypertension, dyslipidaemia, central obesity and insulin resistance can follow chemotherapy
- the prevalence following testicular cancer is 30-50%
- ?hormonal, particularly testosterone deficiency
- the benefits of replacement uncertain
- screening is indicated in these patients

Other long term complications

- Infertility
- Premature menopause (age and chemotherapy type important), sexuality
- Impaired immune system eg Hodgkins
 - Fluvax and pneumovax
- Survivor anxiety and hyper-vigilance

SCREENING FOR SECOND CANCERS



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