Mrs DH, 65 y old female diagnosed with fungating L / breast cancer with bony mets. She tried chemo / radiotherapy options; suffered with side effects and she decided no further active treatment. She developed a large fungating cancer mass over 18 months.

**During my 1st visit, she provided the following information:**
1. **Physical Symptoms:** Presence of a malodorous discharge & contact bleeding & she has pain issues.
2. **Psycho-social issues:** Body image issues, embarrassment & depression; Unable to wear cloths / avoid visits & getting frequent anxiety episodes (“Am I going to die today with bleeding.....”). Husband is the main carer; no other close family members around & community nurses visit daily to help in personal care.
3. She is no financial burdens (both get good pension & living in their own house)
4. She acknowledged that she is not religious (“I’m angry...why I got this...?”, “Why me...?”). She was a teacher and shared with me her valves & beliefs in life

### Issue (1): Contact bleeding from fungating cancer wound

- Patient clearly expressed that she is not ready for any form active interventions including surgery
- Lot of Difficulties in dressing her fungating cancer mass with contact bleeding! Changing any dressing from her cancer wound may peel off the friable soft cancer tissue & due to the vascularity, She bleeds frequently. Suturing the tumour tissue is NOT easy...!

(Q) How do you manage contact bleeding from fungating cancer wound in the Emergency unit or Hospital?

In Emergency Department:

**Mild Bleeding superficial friable / cancer wound (from dressing changes)**

- Spill Tranexamic acid injection (Cyklokapron 500mg / 5 mL) in KALTOSTAT® (calcium impregnated dressing); Apply with some pressure for ½ hour

**Availability:**

- Tranexamic acid (Cyklokapron) injection 500mcg / 5mL
- Calcium Sodium Alginate Dressing (KALTOSTAT®)
There are a number of strategies available for actively bleeding wounds in the hospital:

- Sucralfate paste or an alginate may be applied to wounds with a small amount of bleeding
  - (Thomas S, et al. 1998; Emflorgo CA, 1998). Alginates should, however, be used with caution in fragile tumours as they may cause bleeding (Grocott P, 1998).
- As an alternative, haemostatic surgical sponges, such as Spongostan® or Oxycell®, can be used as these promote rapid haemostasis and can be left in place and covered with an appropriate dressing.
- Using adrenaline soaked dressing become less popular in Palliative care management for large surface fungating wound
  - *use with caution (as absorbed systemically) under medical supervision (Naylor, 2002) & local absorption may cause ischaemic necrosis with local vasoconstriction (Grocott P, 2000) → Lead to further malodorous wound / infection / sepsis

Excessive, uncontrolled bleeding may need referral to a vascular surgeon for cautery or ligation

(Usually surgical ligation for friable tumour bleeding point is not very helpful!)

Reference:

2. Grocott P. Palliative management of fungating malignant wounds. J Community Nursing (online) 2000; 14(3)

Patient decided to stay at home with her previous hospitalisation experience (Cauterisation tried once as an emergency procedure for bleeding, with burning smell, patient decided NOT to go to the hospital again!)

Few more questions to go... & finally I give my combined cancer wound management at home for this lady

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Issue (2): She produces continuous malodorous discharge from her fungating wound...

- She is in low mood, not want to see friends & having body image issues with foul smelling wound
- Initially, she avoided all the health professionals, gradually accepted help from palliative care services & community nurses

(Q) How do you manage continuous malodorous discharge from fungating cancer wound?

Answer:

Siew Bee Lian et al. 2014
The proliferative growth, loss of vascularity and formation of necrotic tissue often lead to colonisation of microbial growth; however only a relatively small proportion will develop wound infection (Mortimer PS 1998; Bowler P. 1998). The colonisation of non-sporing anaerobes releases volatile fatty acid as a metabolic end-product, which is responsible for the offensive odour and copious exudate (Mortimer PS 1998; Miller C. 1998; Moody M. 1998). Odour control has been a great challenge for wound management as the offensive odour can have detrimental effects on the psychological and social wellbeing of the patients and their caregivers (Grocott P. 1998; Haughton W, et al. 1995; Hampson JP. 1996). It often leads to social embarrassment, disgust, helplessness, social isolation & depression (Clarke L. 1992; Price E. 1996)
Treatment:
Debridement removes necrotic tissue and bacteria and is the primary treatment for malodorous fungating wounds. Surgical or sharp debridement, however, is not recommended because of the increased tendency of these wounds to bleed. Autolytic or enzymatic debridement is the preferred method, providing this does not significantly increase exudate production (Grocott P, 2001).

Symptom Management: Multiple agents used to reduce the foul smell
1. Antibiotic therapy can be effective if this destroys the bacteria responsible for malodour - Strong evidence for Metronidazole (Bower M, et al. 1992; Newman V, et al. 1989; Ashford RF, et al 1980; Hampton JP. 1996). This may be given systemically, but side effects such as nausea, diarrhoea, neuropathy and alcohol intolerance may affect patient acceptability. A poor blood supply to the wound may further reduce the effectiveness of systemic treatment.
   - Metronidazole gel 0.75% or 0.8% applied topical use once a day 5-7 days is very effective (Cutting K, 1998) but may need to be repeated more often to keep malodour under control.
   - Gauze soaked in IV metronidazole solution may be useful in wounds with deep cavities.
   - Compounding Pharmacy can produce flagyl powder that can be sprayed onto wounds.

2. The use of activated charcoal dressings can have an immediate effect on wound malodour (Williams C, 1999) These include plain activated charcoal cloth (e.g. CliniSorb), or charcoal cloth combined with other dressing materials (e.g. CarboFlex, Lyfoam C) or impregnated with silver (e.g. Actisorb Silver 220). Activated charcoal attracts and binds the volatile odour causing molecules, preventing their escape from the local wound area.
Both sides of CliniSorb are identical therefore it can be used either side down. It is soft and flexible and can be cut to conform to curved body sites. It can be reused for up to a week thus making it a very cost effective charcoal option.

3. **Icing Sugar/Sugar paste and honey have been in use,** mainly due to the emergence of many antibiotic resistant strains of bacteria, and both have antibacterial and debriding properties. The high sugar content of these products produces a hyperosmotic wound environment that inhibits bacterial growth and assists in wound debridement (Edwards J, 2000; Cooper R, et al. 1999). Honey may also contain bacteriocidal hydrogen peroxide, which is slowly released as the honey is diluted in wound exudate; while specific types of honey may have plant derived antibacterial properties (Molan PC, 1999; Morgan DA, 2000; Molan PC. 2001). [MEDIHONEY® Antimicrobial Active Manuka Honey](http://www.dermasciences.com/products/advanced-wound-care/medihoney/outside-the-u-s/)

4. Occlusive dressings may help by containing wound malodour, while daily dressing changes with the correct disposal of soiled dressings, can help prevent build-up of stale exudate. Deodorisers may mask the odour and products such as essential oils, environmental air filters or commercial deodorisers may be helpful (Naylor W, 2001). However, on occasions these products, in particular commercial deodorisers, may make the odour worse or cause unpleasant associations with smells.

5. Green tea has been studied extensively in clinical trials over the past decades; studies have showed that polyphenolic compounds in green tea have chemo preventive, antibacterial, antiviral and antioxidant properties (Ahmad N, et al. 1997; Hara Y, 2001; Zhen YS, et al. 2002; Hsu S, 2005)

Irrigate wound with Green Tea solution

References:


**Issue (3): Pain.**

She is having constant local site pain (It is an ache; pain score = 5-6/10) with intermittent sharp shooting pain (Pain score = 10 / 10) from L/axilla & using only paracetamol 1 gr po Qid with minimum effect. (History of some reaction to morphine once at hospital)

- What are the types of pain we are talking about?
- How do we manage these different types of pain?

**Answer:**

*Pain is a subjective feeling / perception!* If you give same stimuli to few people, their severity & perception will vary (from just a discomfort to severe pain...).

Here, this patient has

1. Constant background pain from wound with stretching tissues / compressing the underline structures &
2. Nerve pain from damaged nerve endings & from compressed nerves by the tumour

In spite of her regular paracetamol intake, she has pain (look at her pain scores!). She needs opioid for tumour pain but she has some reaction in the past....

We have to make sure whether it is a dose-related hypersensitivity reaction or proper allergic reaction? In hospitals, there is a tendency to categorised all the hypersensitivity reactions ‘under allergy’ without any further exploration. An opioid naive patient may react to his/her 1st dose of opioid with nausea or vomiting or feeling strange.... We can’t categorise them as allergic to opioid! From further exploration, she felt nausea & strange feeling with 5mg morphine injection (in the hospital two years ago!). She is not keen to try again the morphine injection!

(Morphine comes in different preparations: Tablets, Capsules, Suspension, Suppository or Injection). Morphine 5mg injection is approximately equal to 10-15mg of oral morphine preparation! (The opioid dose conversion ratios have been provided only a rough guide. There is considerable variation in what provides an “equi-analgesic” dose!).

This lady decides to stay at home & request palliative care services to keep her comfortable until death!

I have to make plan for

1. Contact bleeding
2. Malodorous discharge
3. Pain (when you mentioned morphine she become anxious!)

Management:
(1) Topical Cocktail application:
- Every other day Icing sugar applied to the wound, next day it is cleaned by warm normal saline & topical cocktail applied
- Topical cocktail (Metronidazole Gel 0.75% 30 gr tube + Lignocaine 2% 10gr mixture)
  (We use multiple mixture of topical drugs, It is not in any drug formulary / not licenced & * Discuss with your Country Palliative Specialists or Hospital Pharmacists. (In terminally ill, their comfort is our prime goal!)
- Sprinkle Tranexamic acid powder (Crushed tablets) over the fungating wound – daily

(2) Continue Paracetamol regular 1 gr Qid
(3) Metoclopramide 10mg po tds to prevent drug induced nausea
(4) Different oral opioids (Oxycodone / Hydromorphone) tried in very small doses (0.5-1mg) & opioid skin batches were tried; she felt strange to them (GI side-effects) but tolerated small dose of methadone Suspension. She managed to take 1 mg po bd / tds as per her needs.

Explanation:
- Colonisation of non-sporing anaerobes releases volatile fatty acid as a metabolic end-product, which is responsible for the offensive odour and copious exudate. Metronidazole gel destroys the anaerobes.
- The use of honey, icing sugar and sugar paste has been shown to be effective in encouraging autolytic debridement of necrotic tissue in fungating wounds. They also have the benefit of reducing any malodour (Sims and Fitzgerald, 1985; Thomas, 1992). Icing sugar dry the fungating tumour surface (cells) & kill the bacteria by osmosis (Hampton & Collins, 2003). Sugar exerts its antibacterial effect by competing for water present in the cells of bacteria (Morgan, 1999; Loncin & Merson et al., 1979). Sugar is non-toxic, even in wounds of diabetic patients although it should be used with caution in renal disease (Topham, 2002). However, one problem associated with the use of sugar paste is the osmotic effect on the micro-cellular environment of the wound and pain may be temporarily experienced as fluid is drawn from cells, particularly in already painful wounds.
- Local absorption of Lignocaine gel provides good cool feeling & numbness / pain control for few hours.
- Achieved good haemostasis by Tranexamic acid powder daily dressing
- Gabapentin 25mg po tds started for sharp neuropathic pain, gradually increased & achieved good pain control in 100mg po tds
- Metoclopramide 10mg po tds started to counteract the opioid / metronidazole induced nausea
- Methadone suspension kept her reasonably comfortable!

→ She lived the way she wants, stayed comfortably without malodorous discharge & minimal contact bleeding or pain & died at home comfortably in 5/12.

Reference:
263; 7072: 820-825.