When Cure is Not the Goal:

Palliative Care for Pressure Injuries & Chronic Wounds

Jeffrey M Levine MD
Associate Professor of Geriatrics & Palliative Care
Icahn School of Medicine at Mount Sinai
NY, NY

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Learning Objectives

- State alterations in skin that occur with aging and comorbidities that can lead to chronic and palliative wounds.
- Describe the basic phases of wound healing
- Describe identifying features of a palliative wound
- Identify treatment approaches for palliative wounds

Introduction

Methods now exist which can ensure the relief of end-of-life suffering through rational implementation of pain relief and palliative care. Despite this, palliative care is not available in many settings. There are many barriers to the efficient and effective delivery of palliative care.

What is Palliative Care?

Palliative care is focused on providing patients with relief from the symptoms, pain and stress of a serious illness — whatever the prognosis. The goal is to improve quality of life, comfort, and dignity for both the patient and the family as they are the central system for care.

Agency for Healthcare Research and Quality. 2013

Palliative Care is NOT:

- “Terminal care”
- Hospice care
- “Throwing in the towel”
Palliative Care for Wounds

• When it becomes clear that there is little/no realistic chance of healing

• Wound is unresponsive to therapy

• The process of achieving healing is inconsistent with overall goals of care

Alvarez, Wounds V 17, #4, April 2005

Imhotep

Egyptian God of Medicine
3000 BC
Function of Normal Skin

- Barrier protection against microbes, physical and chemical insults
- Thermoregulation
- Regulation of water loss
- Sensation, signals about our environment
- Immune function
- Endocrine function: Vitamin D3 production, testosterone metabolism

Normal Wound Healing Phase I: Hemostasis & Inflammation

- Fibrin clot
- Platelet activation
- Mediators [Pro-inflammatory cytokines] stimulate influx of inflammatory cells
- Vasodilatation, increased capillary permeability, complement activation
- Migration of neutrophils and macrophages
Normal Wound Healing
Phase II: Proliferation

- Re Epithelialization
- Granulation tissue formation
- Angiogenesis involving fibroblasts and endothelial cells
- Synthesis of extracellular matrix

Normal Wound Healing
Phase III: Tissue Remodeling

- Involution of granulation tissue
- New scar is formed
- Collagen fibers are rearranged
- Dermal regeneration
Phases of Normal Wound Healing

ACUTE vs CHRONIC Wounds

- Little consensus on definition
- Healing time > 6 weeks
- An ‘anti-healing environment’ at the wound site
  - Presence of chronic inflammation, biofilms, pro-inflammatory cytokines (MMPs), TNF-α
  - Lack of pro-proliferative, or pro-regenerative agents: TGF-β1–3, PDGF, VEGF
- Underlying medical & physiologic factors inhibit healing
The Palliative Wound

• The cause is not treatable (Seldom a single cause)
• Coexisting irreversible medical conditions or terminal prognosis prevent normal healing
• Healing is not expected

Woo, K. Adv Skin Wound Care. Dec 2013 V 26 #12

Common Wound Etiology

• Pressure injury
• Arterial ulcer
• Venous ulcer
• Diabetic ulcer
• Surgical wound
• Malignancy
• Autoimmune source or vasculitis
• Irritation, trauma, burn, etc.
Recognizing the Palliative Wound

- Intrinsic and Extrinsic Aging
- Multiple untreatable comorbidities
- Wound bed issues
- Nutritional deficiencies
- The dying process
Changes in Aging Skin

**INTRINSIC vs EXTRINSIC causes**

Both have profound genetic and ethnic differences

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**Intrinsic Changes of Aging Skin**

- Increased oxidative stress
- Decreased immunity
- Altered anatomy
- Reduced regenerative capacity
- Reduced vascularity
- Drying, loss of lipids, change in pH
- Altered sensation
- Decreased hair, sebum, sweat glands
Extrinsic Causes of Aging Skin

- Environmental insults through oxidative stress
- Generation of free radicals and reactive oxygen species (ROS)
- Most important:
  - UV radiation (photo aging)
  - Cigarette Smoke
  - Ozone (\(O_3\))
  - Airborne particulate matter
Recognizing the Palliative Wound

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Comorbidities that Impact Healing (I)

- Altered hormone levels (Estrogen, Testosterone, GH, cortisol, thyroid)
- Anemia
- Atherosclerosis, decreased perfusion
- Venous insufficiency
- Diabetes with microvascular and neurologic changes
- Any source of edema: CHF, Venous stasis, hypoalbuminemia
- Organ failure: Kidney, heart, liver
Comorbidities that Impact Healing (II)

- Any source of hypoxia: COPD, OSA
- Low cardiac output state: CHF, shock
- Incontinence with Moisture Associated Skin Damage (MASD)
- Colonization with fungus and pathogenic, multiple resistant bacteria
- Pharmacologic compromise with corticosteroids, immunomodulators
- Obesity, lymphedema, anasarca

Recognizing the Palliative Wound

- Intrinsic and Extrinsic Aging
- Multiple untreatable comorbidities
- Wound bed issues
- Nutritional deficiencies
- The dying process
Wound Bed Issues

- Slough, bioburden
- Critical colonization, or Biofilm
- Necrosis
- Foreign body
- Cellulitis
- Edema, maceration
- Chronic contamination

Recognizing the Palliative Wound

- Intrinsic and Extrinsic Aging
- Multiple untreatedable comorbidities
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- Nutritional deficiencies
- The dying process
Nutritional Deficiencies

- Metabolic demand exceeds intake
- Conditions affecting nutrition:
  - Poor POI
  - Gastroparesis
  - Malabsorption
  - Intestinal pathology and H/O bowel surgery
- If metabolic demands for wound healing are unmet, wounds have less chance of healing

Recognizing the Palliative Wound

- Intrinsic and Extrinsic Aging
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- Nutritional deficiencies
- The dying process
PrU as a Distressing Symptom Before Death


Skin and the Dying Process (I)

- Skin is the largest organ
- Physiologic changes with the dying process may affect skin and soft tissues and manifest as changes in skin integrity. These changes can be unavoidable and may occur with the application of appropriate interventions that meet or exceed the standard of care.
Skin and the Dying Process (II)

- Skin changes at life's end are a reflection of compromised skin (reduced soft tissue perfusion, decreased tolerance to external insults, and impaired removal of metabolic wastes).
- Expectations around end of life goals should be communicated among the members of the team and the patient’s circle of care. The discussion should include the potential for SCALE including skin breakdown and pressure injuries.

2009 SCALE Expert Panel

Basic Principles of Wound Care

1) Assess the Wound
2) Address Infection
3) Remove Debris and Necrosis
4) Address Moisture Balance
5) Recognize the Palliative Wound
1) Assess the Wound

- Describe it (This entails looking at it)
- Document it
- Diagnose the cause
- Rule out malignancy
- Assess for infection

2) Assess for Infection

- Remember the spectrum: colonization, critical colonization (biofilm), superficial infection, deep infection
- Eliminate biofilms
- Control infection that can be superficial or deep
- Don’t forget fungus!
3) Eliminate Debris & Necrosis

- Address wound periphery
- Debridement
  - Autolytic
  - Chemical/Enzymatic
  - Mechanical
  - Surgical

4) Address Moisture Balance

- Wounds should be moist...
- ...but not too moist!
- Healing is accelerated in moist wounds
- Peri-wound maceration is not good
- Exudate of chronic wounds has higher MMPs than acute wounds
4) Recognize the Palliative Wound

- When it becomes clear that there is little/no realistic chance of healing
- Wound is unresponsive to therapy
- The process of achieving healing is inconsistent with overall goals of care
- Understand that palliation is not “giving up”
- Understand that specific treatment modalities may offer little benefit.

Alvarez, Wounds V 17, #4, April 2005

The Palliative Approach (I)

- Identify the goals of care: cure vs comfort
- Consider AD’s, values, and ethical issues
- Educate the patient and family
- Emotional support
- Promote comfort
- Prevent further skin deterioration and infection
- Optimize pain mgmt and other symptoms
- Key word: INTERDISCIPLINARY
The Palliative Approach (II)

- Engage the entire care team, including physician and family
- Reconsider futile, heroic, measures:
  - Repeated hospital transfers
  - Sharp debridements
  - Operative procedures
  - Skin grafts
  - Ancillary approaches such as HBO, NPWT
- Burdens vs benefits of procedures

Palliative Care of Wounds: “SPECIAL”

S = Stabilize the wound
P = Prevent new wounds
E = Eliminate odor
C = Control pain
I = Infection prophylaxis
A = Absorbent wound dressings
L = Lessen or reduce dsg changes

Wendelken. Podiatry Today, V22 #7 July 2009
Pain & Advanced Dementia


Videotaped facial expressions of non-verbal persons with advanced dementia with deep pressure injuries during dressing changes, showed the videos to medical students and nurses. Studied reliability and validity of facial expressions that communicated pain.

Not surprisingly, dressing changes elicited pain reactions as communicated via facial expressions in persons with advanced dementia. Conclusion: facial expressions are a reliable method of communicating pain.

Note: Effective compliance date of HIPAA was April 14, 2003.

Implications...

- 1.4 million people live in nursing homes
- 2/3 have moderate to severe cognitive impairment
- >5% have stage 2 or greater PrU's
- Outsourced wound care has become the standard in many (?most) NH's across America
- Outsourced wound care practices have a clear financial incentive to perform procedures
Pain Management (I)

• Wound Pain is known to be under-assessed and undertreated
• 2 Types of Wound Pain:
  ➢ Nociceptive (from damage to tissue)
  ➢ Neuropathic (from damage to nerves)
• Pain from wound treatment:
  ➢ Dressing changes
  ➢ Turning and positioning


Pain Management (II)

• Choose least-painful treatment strategy
• Pharmacologic approaches:
  ➢ Nociceptive pain: NSAIDS, Opiates
  ➢ Neuropathic pain: Tricyclics,
  ➢ Topical anesthetics: Lidocaine
• Complementary approaches:
  ➢ Massage, touch, acupuncture, E-stim, etc.
• Remember that pain can be a signal for wound infection

Odor Control

- Silver dressings
- Charcoal dressings
- Chlorophyllin dressings
- Metronidazole gel (off-label)
- Cadexomer Iodine

Benefits of Palliative Wound Care

- Avoid rehospitalization
- Avoid painful procedures
- Avoid futile treatments
- Avoid unnecessary suffering and prolongation of the dying process
- Improve quality of life
- Decrease costs
Barriers to Palliative Care for Wounds

- Physician reluctance
- Association of palliation with death
- Family reluctance
- Lack of information about the severity and/or irreversibility of illness
- Cultural/political attitudes toward death, terminal care, and pressure injuries (which are commonly viewed as a failure of the caregivers)

In Summary

- The rise in chronic nonhealing wounds are a result of prolonged life expectancy with increased burden of chronic illness
- Many wounds we care for have reduced or no chance of healing
- Recognition of the palliative wound has the potential to curtail suffering and decrease healthcare costs
Q: Can Palliative Wounds heal?

A: Wounds that are designated can certainly show signs of healing and according to anecdotal reports can indeed heal!

Case #1

A 71 year old female with metastatic breast cancer is admitted to your SNF on hospice. You are asked to see this lesion which is malodorous and draining.

- How is it treated?
Case #2

An 81 year old man has had Type II DM for the last 25 years and is on hemodialysis for the last 6 months. Other problems include vascular dementia, severe anemia with Hb 8.2 and CHF with EF of 30%. He eats poorly and his albumen is 2.3. He was transferred to your SNF with this wound. The family found on the internet that plastic surgery can close this wound.
We’ve got a long way to go!