



Complicated Wound Management: A Case-Based Approach

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Lecture Objectives

- Recognize the role that wound location and severity play in management of wounds
- Be aware of anatomic locations where wounds may occur that commonly involve other structures and strategies to rule out their involvement.
- Select wound management techniques based on location, chronicity, contamination, and other wound factors.

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Principles of Wound Evaluation

- **Assess**
 - Systemic health
 - Other wounds
 - Presenting problem
- **Body cavities/structures**
 - Thorax (trachea)
 - Abdomen
 - Joints, tendon sheaths
- **Clean**
 - Clip
 - Debride
 - Lavage



Wound Evaluation

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Bov Flank Laceration

- 4 mo HO heifer
- Laceration: >4 wks

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Bov Flank Laceration

- Physical Exam
 - T: 100.3° F
 - P: 60 bpm
 - R: 44 bpm
 - CRT: 2 sec
 - MM: pink, moist
 - No murmur, arrhythmia
 - Normal bronchovesicular sounds
 - Normal GI sounds, rumen cont.
 - No other wounds

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Bov Flank Laceration

B

B

Body Cavities

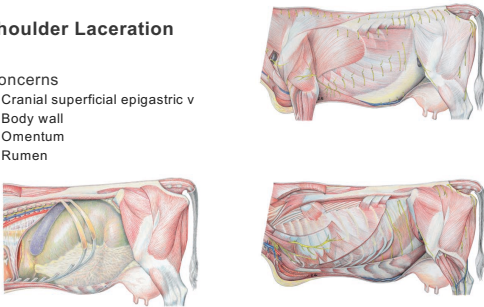
B

B

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Eq Shoulder Laceration

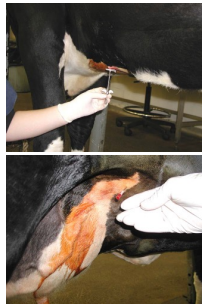
- Concerns
 - Cranial superficial epigastric v
 - Body wall
 - Omentum
 - Rumen



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Bov Flank Laceration

- Rule out peritoneal involvement
 - Palpation
 - Abdominocentesis



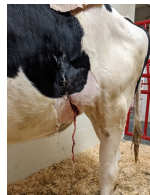
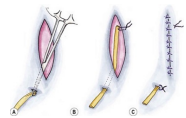
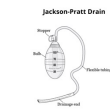
Images from Vet Clin Food Anim (2005) – Management of Peritonitis in Cattle



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Bov Flank Laceration

- Large, open wound
 - Multi-layer closure
- Lots of dead space
 - Place drain
 - Bandage
- Contaminated wound
 - High volume lavage
 - Systemic antibiotics



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Bov Flank Laceration



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Bov Flank Laceration



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Bov Limb Superficial Necrosis

- 2 wk Hereford heifer
- ????????



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Bov Limb Superficial Necrosis

- Physical Exam
 - T: 102.2° F
 - P: 84 bpm
 - R: 60 bpm (panting)
 - CRT: 2 sec
 - MM: pink, moist
 - No murmur, arrhythmia
 - Harsh bronchovesicular sounds
 - Lame on RH limb
 - No other wounds





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Bov Limb Superficial Necrosis

- Neonatal exam
 - Passive transfer
 - Congenital abnormalities
 - Umbilicus
 - Joints



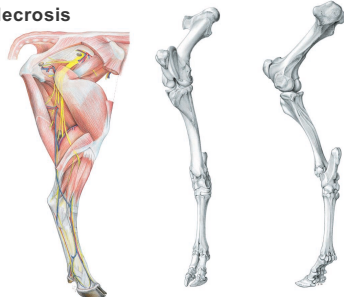





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Bov Limb Superficial Necrosis

- Concerns
 - Quadriceps mm
 - Flexors of digit
 - Tibial, peroneal nn
 - Lateral saphenous v
 - Stifle joints
 - Tibia





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Bov Limb Superficial Necrosis

- Plan
 - Regional limb perfusion
 - Antibiotic
 - Local anesthetic
 - Wound debridement
 - Sharp



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[illegible]

Bov Limb Superficial Necrosis

- Plan
 - Bandage
 - Cleanliness
 - Reduce edema
 - Delayed primary closure



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[illegible]

Bandaging – Primary Layer

- “No single dressing may support the processes of wound healing in all phases.” Equine Wound Management, 2016

Wound Characteristic	Dressing
Necrotic wounds	Wet-to-dry gauze
Desiccated wounds	Hydrogels
Wounds lacking granulation tissue	Alginates
Granulated wounds lacking epithelialization	Foams or silicone gel sheets
Excessively exudative wounds	Hypertonic saline dressings
Sutured wounds	Non-adherent gauze dressings
Infected wounds	Antibacterial dressings

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[illegible]

Bandaging Principles

- Bandaging Principles
 - Primary
 - Contact layer
 - Secondary
 - Padding
 - Immobilization
 - Absorption
 - Tertiary
 - Immobilization
 - Compression
 - Fix to limb





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Bandaging Principles

Primary

Secondary

Tertiary

Tertiary





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Bov vs Bale Spear

- 6 yo Angus cow
- Hit with bale spear





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Bov vs Bale Spear

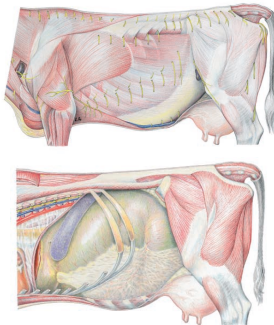
- Physical Exam
 - T: 102.6° F
 - P: 76 bpm
 - R: 44 bpm
 - CRT: 2 sec
 - MM: pink, moist
 - No murmur, arrhythmia
 - Normal bronchovesicular sounds
 - Rumen: 2 strong contractions per minute
 - No other wounds



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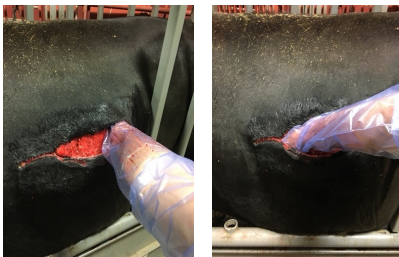
Bov vs Bale Spear

- Concerns
 - Pneumothorax
 - Ribs
 - Abdomen
 - Rumen

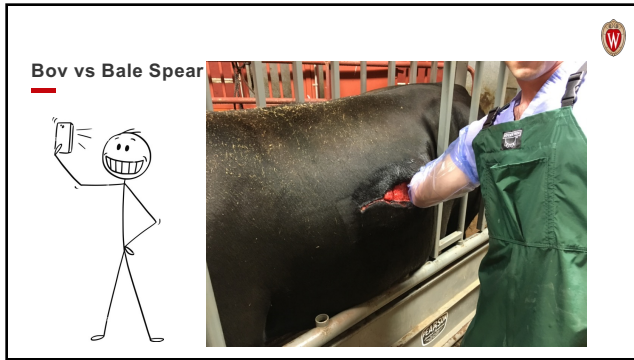


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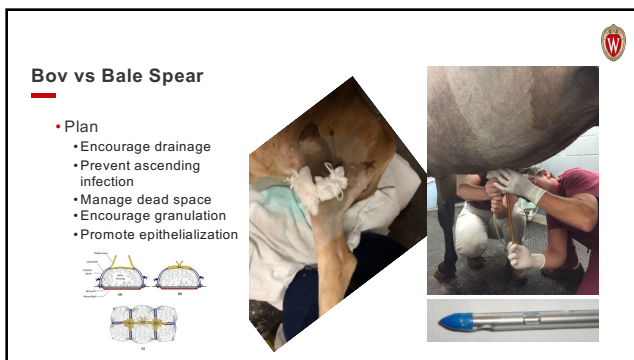
Bov vs Bale Spear



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Bov Distal Limb Laceration

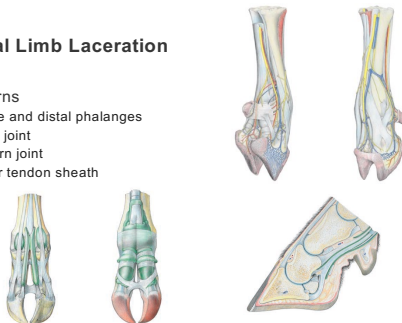
- Physical Exam
 - T: 99.4° F
 - P: 72 bpm
 - R: 28 bpm
 - CRT: 2 sec
 - MM: pink, moist
 - No murmur, arrhythmia
 - Normal bronchovesicular sounds
 - Non-weightbearing on LH
 - No other wounds



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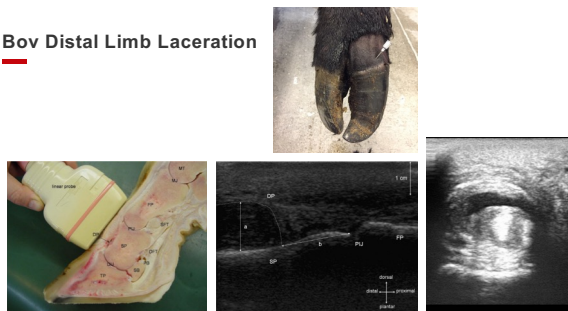
Bov Distal Limb Laceration

- Concerns
 - Middle and distal phalanges
 - Coffin joint
 - Pastern joint
 - Flexor tendon sheath



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Bov Distal Limb Laceration



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Bov Distal Limb Laceration

- Plan
 - Wound care
 - Facilitated ankylosis
 - Bone graft

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Bov Distal Limb Laceration

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Questions

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