AAST PALLIATIVE CARE COMMITTEE

NECROTIZING SOFT TISSUE INFECTIONS GOALS OF CARE

INITIAL FRAMING

Necrotizing soft tissue infections (NSTIs) are severe life- and limb-threatening infections with extraordinary rates of morbidity and mortality. Sadly, there has been minimal improvement in outcomes over time and understanding of this disease process.

Discussions of operative/intensive care plans should be paired with honest talk about expected surgical outcomes, overall prognosis, likely functional outcomes, and long-term complications.

Include what the exam and early imaging can and cannot tell us, and time frames for a more confident prognosis (days-weeks for acute recovery from infection, wound management, and functional recovery could be months pending extent of disease and tissue removal).

Comorbidities and co-existing diseases should be included in the discussions of prognosis. Prognostic certainty is not required. Frailty should also be considered before starting a complicated and prolonged clinical course.

Discuss expectations upfront and establish patient centered goals. Time-limited trials in the form of first evaluation in the operating room to determine extent of disease, then a more thorough discussion of expected clinical course and outcomes may be appropriate given the surgical emergency nature of the disease. One operation does not commit the patient or the surgeon to multiple operations, treatments, prolonged ICU or hospital course. Evaluation of treatment plans at multiple stages should occur in this disease process.

COMMUNICATION

Identify health care proxy/surrogates early and clarify patient values focusing on independence, postoperative function, avoidance of prolonged dependency, tolerance of complications/suffering, religious or cultural priorities, etc.

Aim to have a structured family meeting that includes all relevant specialists within 24-28 hours of admission.

Review imaging and exam findings in accessible terms and outline the most probable functional and cosmetic outcomes.

Frame decisions around functions that matter to the patient (ie: living at home, selfcare, functional limitations associated with debridement/amputation, chronic wound care, chronic pain management, not needing a caregiver, etc) rather than focusing on possible procedures or abstract goals.

Clearly document and communicate code status, ventilatory preferences, thresholds for ICU transfer, and limits on invasive monitoring.

At new inflection points (failed extubation, new or ongoing sepsis despite adequate debridement, need for further debridement, progressive instability) revisit goals, discuss the option of shifting focus primarily to comfort, and normalize hospice involvement when appropriate.

PROGNOSTICATION

Anchor prognosis on extent of disease, comorbidities, ongoing organ dysfunction past 14 days, need for amputation in extremity cases. Be up front and honest to establish report and trust.

Intense grief and hopelessness early on do not reliably predict long-term happiness or quality of life. However, outside of the acute treatment period, patients require long-term multidisciplinary support as they recover from their critical illness and the consequences of aggressive surgical debridement or amputation, which are commonly associated with new challenges in daily activity and pain management. Patients recovering from NSTIs report decreased health-related quality of life, particularly in the domains of decreased physical functioning, greater limitations in daily life, decreased feelings of overall health compared with others, and increased rates of depressive and/or posttraumatic stress disorders.

SYMPTOM MANAGEMENT PRIORITIES

Anticipate severe neuropathic and musculoskeletal pain and use multimodal regimens for management (i.e. opioids, neuropathic agents, muscle relaxants, regional techniques, etc.).

Institute early pressure ulcer prevention given the debility of the disease after debridement in many cases.

INTEGRATING REHABILITATION/ POSTOPERATIVE MULTIDISCIPLINARY APPROACH TO RECOVERY

Present early rehabilitation not as “cure” but to maximize independence, reduce complications, and enable time at home.

Discuss wound management plan and give timelines. Wound care involves a multidisciplinary approach (i.e. infectious disease, plastic surgery, general surgery, critical care, physiatrist, wound care team, etc).

For patients with limited prognosis (e.g., malignancy relate or unrelated to NSTI, severe comorbidities), target rehabilitation toward achievable, meaningful goals (transfers, communication aids, symptom control), not arbitrary functional scores. Goals of care should focus on overall prognosis of all comorbidities/coexisting diseases, rather than just the wound.

FAMILY AND CAREGIVER SUPPORT

Acknowledge and incorporate caregiver burden explicitly and anticipate long-term physical, financial, and emotional strain.

Engage case management and social work early for home-care resources, equipment, disability paperwork, and community support.

Prepare families for common trajectories, including prolonged ICU stays, prolonged rehabilitation, recurrent complications, and readmissions.

TAKE HOME POINTS

- NSTI is a highly morbid disease with a high mortality rate despite the ever-increasing understanding of the underlying pathophysiology and aggressive surgical intervention.
- Early engagement in GOC discussion is crucial for the patient and family regardless of extent of disease.
- Managing expectations and early discussions of what to expect in the perioperative and postoperative setting are key in the treatment of patients with NSTI.
- NSTI is a multidisciplinary approached disease, and it is crucial to keep open lines of communication between the patient/family and care teams. Inflection points are crucial times to revisit goals and align patients/families so that the multidisciplinary team can provide value-congruent care.

WHERE TO HANG:

- Surgeon Lounge
- OR Locker Room
- Resident Workroom
- ICU Workroom

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