Background

- Research has shown that patients undergoing a Hematopoietic Cell Transplant (HCT) have significant physical deconditioning due to the prolonged hospital admission.  

- The Massage Therapy program at Nationwide Children’s Hospital has developed an innovative index to assess efficacy of massage for this pediatric oncology patient population receiving HCT.

- Massage Therapy is used a member of the psychosocial team with our oncology population to address the physical and emotional manifestations related to treatment.

Purpose

- The purpose of this case study is to describe how the HCT index is used to objectively record the trend of massage therapy domains over the course of the HCT admission and assess engagement.

- Massage Therapy works in conjunction with Physical Therapy, Occupational Therapy, Therapeutic Recreation, and other members of the Psychosocial team to reduce the amount of physical deconditioning these patients generally experience.

- The index addresses the following five domains and assigns a number value from 0-5 for each:
  - Engagement: eager, agreeable, withdrawn, hesitant/reluctant, guarded, refuses
  - Orientation: baseline, tired/fatigued, lethargic, disoriented, does not arouse
  - Pain symptoms/sensation: normal, dull/aching, throbbing, deep, hyperesthetic
  - Pressure Tolerance: firm, slightly firm with muscle contact, contact with superficial muscle, resting hands with no weight/nurturing/slow, very light resting hands/nurturing/slow
  - Muscle tension/texture: normal/baseline, hypertonia/hypotonia, contracted muscles, rigidity/significant muscle tension, atrophy/withering

Patient Background

- 7 year old female
- complex medical history, including Myelodysplastic Syndrome, Anxiety, Obsessive-compulsive behavior, and Oppositional defiant disorder
- Underwent Maternal Haploidentical Peripheral Blood Stem Cell Transplant
- Patient received 21 days of massage therapy during a 33 day admission.

Methods

- Initial assessment occurred day 8 prior to HCT
- Of note, patient on isolation status and unable to leave room for duration of admission
- 1-2 Massage Therapy sessions per day, 4-5 days per week
- 30-60 minutes intervals
- Patient received total of 21 massages during HCT admission
- Recorded at evaluation and all treatment sessions
- Each domain rated on a 0-5 point scale with 5 being baseline value

Muscle Tension/Texture: The baseline for this patient began at a 5. Over the course of treatment, therapist noted a gradual increase of tightness in muscles and surrounding tissues. By the 11th massage session, patient had not returned to baseline at discharge.

Results

- The results of the index score were varied with an expected decline in all domains at some point during the HCT.
- Patient noted to have more significant decline in domain of muscle tension/texture.
- Patient had a return to baseline levels for domains at time of discharge, except for muscle tissue/tension.

Therapeutic Activity

- Patient often declined other therapies during her HCT admission. The majority of her time engaged in therapeutic activity was with massage therapy.

Anecdotally, mom reported that she felt patient was more engaged with massage therapy during her transplant admission because patient was familiar with therapist due to the therapeutic relationship that had been built during the prior three years of oncology treatment. Patient reported that massage relaxed her and took away her nervousness.

*Patient also spent significant time with Art Therapy and Psychology during admission, however those values were not captured.

Discussion

The use of this innovative index captures the progression of the tolerance to each massage domain throughout the HCT process. The implications based on this case shows the value of tracking a patient’s progress and could be used with other patient populations. We will have broad descriptive data available to report on the index showing trends with this specific population as a part of a Quality Improvement project.

References


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