Stakeholder perspectives on limb preservation, rehabilitation, and well-being in complete spinal cord injury: A case report

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Perspective: "The unknown with him was not a paraplegic." Even with complete paralysis, he was able to do limb salvage. Turned out he is now ambulating with a brace in a walker and using the exoskeleton.

Perspective: "I've learned to rely on others and ask for help. It has shown me the value of teaching others...If I really want to do or try something I am able to do it if I just might have to get creative. Things can take longer but they have more flavor. Also, now more than ever, I truly know the things in my life that are most important."

Perspective: Limb preservation can help with movement quality and efficiency, appearance, social, emotional, and mental health, impact on quality of life, reduced need for reconstruction and independent participation in advancing rehab

Background

- A literature review found no studies that looked at patient experience surrounding concurrent acute spinal cord injury and amputation or describing outcomes after lower extremity reconstruction in combination with complete spinal cord injury.


Methods

- Minimal risk institutional review board approved case report
- Retrospective chart review
- Open ended survey questions via red cap were sent to patient, surgeon, therapist, and patient's family
- ICF tool kit examined for applicability

Results

- "Sometimes it's hard for me to think I have things to offer, but I'm learning I do, it just looks different than it used to. I've learned how to never give up and come at things from a different angle."

Conclusions

- Rehab course delayed by 8 months due to arterial repair, right LE external fixation
- Rehabilitation course was delayed by 9 months due to arterial repair, right LE external fixation
- No repeated INCSII, ASIA exam, or FIM
- Time points included acute injury, 12 months post injury, 4 months post knee manipulation and 20 months post injury

Patient 6 months post injury: SCIM III score improved from 18/100 to 22/100, WISCI II score improved from 2/10 to 6/252

- 12 months post injury: 4-months post knee manipulation and 20 months post injury
- WISCI II score improved from 2/10 to 6/252
- SCIM III score improved from 18/100 to 22/100

- Patient can now ambulate with a brace in a walker
- 18 months post injury cleared for use of an exoskeleton
- At discharge from outpatient PT 20 months post injury, he was ambulating in parallel bars at home without knee-ankle-ankle-foot orthosis
- No repeated INCSII, ASIA exam, or FIM

References


Results

- 6 months post injury: SCIM III score improved from 2/10 to 6/252
- 12 months post injury: 4 months post knee manipulation and 20 months post injury
- WISCI II score improved from 2/10 to 6/252
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Discussion

- The open coding thematic analysis revealed themes related to the ICF model of functioning, disability and health (ICD) model of patient experience, including body function and structure, activities and participation, and personal and environmental factors

Perspective: "Despite slowing down rehab, he has been able to achieve his goals. He is independent in self-care, an active father and has returned to work. He remains to have excellent posture."

"I learned to rely on others and ask for help. It has shown me the value of teaching others...If I really want to do or try something I am able to do it if I just might have to get creative. Things can take longer but they have more flavor. Also, now more than ever, I truly know the things in my life that are most important."