Advances in the treatment of Neurogenic Thoracic Outlet Syndrome

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Treatment of NTOS: CONFLICTS OF INTEREST

• None

Treatment of NTOS: THE PAST

• No consistent diagnostic criteria
• No objective outcome measures

• Thus: No agreement on who we are treating and how they actually do. Massive nihilism.

Treatment of NTOS: TODAY

• SVS Committee on TOS reporting standards – published criteria (2016) addressing these issues.
  • Objective diagnostic criteria
  • Objective pre- and post-treatment outcome measures

Treatment of NTOS: OBJECTIVE DIAGNOSTIC CRITERIA

3 of the 4 following:
1. Pain and tenderness at the area of compression (scalene triangle and/or pectoralis minor insertion site),
2. Evidence of nerve compression by distal symptomatology,
3. Absence of another potentially causative problem, and
4. Response to properly performed scalene block.
Treatment of NTOS:

OBJECTIVE DIAGNOSTIC CRITERIA

- Note that we are not claiming to have magically “defined” NTOS once and for all, but are submitting a defined set of criteria that, if used consistently, will create a consistent group of patients.

ILLg et al: SVS Reporting Standards (EU) JVS 2016;64:797-802

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OBJECTIVE OUTCOMES MEASURES

- Are practitioners using these criteria?

Thompson JVS 2017;66:533

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OBJECTIVE OUTCOMES MEASURES

- Are people using these? YES!!

Peek Ann Vasc Surg 2017;40:303-26

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OBJECTIVE OUTCOMES MEASURES

- Peek (meta-analysis)
  - QuickDASH scores reduced 28 points

- Gelabert (transaxillary only)
  - QuickDASH scores reduced 29 points
  - Median pain score reduced from 7 to 1

Gelabert J Vasc Surg 2018;68:938

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Treatment of NTOS: OBJECTIVE OUTCOMES MEASURES

• Thompson (in review, with permission)
  • QuickDASH scores down 30% after “successful” PT, 48% after successful surgery
  • Some decline in SF-12 scoring but more complex

• In progress (U. South Florida data)
  • Approximately 300 patients pre- and postop: QBSQ, QuickDASH, DS, PS
  • Rigorously defined according to SVS RS criteria
  • What correlates best with outcomes?

Treatment of NTOS: WHAT ELSE IS NEW?

• Thoracic Outlet Syndrome 2nd edition (Springer)

WHAT'S NEW?

• Past 10 years: Significant push toward objectivity.
  • Past 2 years: More objective outcome measurements.
  • Coming: Uniform patient population treated and analyzed for results.

ROB THOMPSON’S CONCEPT:

• Treatment of TOS should be limited to those who document diagnosis and results objectively, and (ideally) report those results – or at least make changes in their practice based on objective outcomes.