The Future of MIS Spine for ASC’s

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Disclosures

• Royalties
  – Developer "YESS" Richard Wolf Endoscopic System
  – Elliquence Disc FX system
• Speakers Bureau
  – Richard Wolf Surgical Instrument Company
  – Elliquence, Inc
• Stock or Stock options
  – Surgitech, Ouroboros, Chart (Chymopapain), Bonovo, Minimus Spine,
  Replication Medical, Paradigm Spine, Small Bones Innovation,
  Pioneer Surgical, Trans-1, Ossiri, Nocimed, Mobius, Alexxa
• Board, Medical Advisory Committee Member
  – Exe secretary, lits; President and Gen secretary WCMISSST
  – Ouroboros
  – Surgitech
  – Amendia
  – Stimwave

Disclaimer

• This talk reflects my own personal opinion based on the successful establishment of a spine focussed ASC and the business decisions that shaped its evolution as a surgical facility.
• The surgical facility model was not only rejected by competitors, but some worked actively to try to speed up its demise early in its existence, only to be copied later in by competitors.
• The landscape for such ventures may have changed.
ASC Ownership Disclosure

- 1998 Sole Owner: First Ambulatory Facility dedicated to Endoscopic spine surgery in Phoenix
- Limited practice to endoscopic spine surgery
- Since 2001, my son Chris Yeung and 2 other outstanding fellowship trained spine surgeons joined the practice

Prediction: Spine ASC’s Won’t All Thrive

- Referral patterns are changing d/t alliances governed by payors and hospitals
- Surgeons will be restricted to affiliated ASC’s
- ASC’s will require a core group of well trained surgeons dependent only on themselves
- New MIS spine centers may be in name only

3 Competing Centers in Phoenix

Squaw Peak surgical facility 1998
New Center three miles away 2014
What is the formula for success?

• Are all new centers truly MIS?
• Owner developed?, Business developed?
• Joint venture with hospitals or ASC development Companies?
• Who are the new owners / investors?
  – Spine only groups?
  – Multi-disciplinary?
  – Compatible practices?

For Spine ASC’s to Thrive

• Innovative procedures performed by well trained
  MIS surgeons who are not controlled by or
  dependent on payers.
• Protect Referral patterns not dependent on payer
  and referral dynamics
• Superior Cost and Surgical Efficiency over competing
  ASC’s
• Attract Medical Tourism out of area
• Negotiate and ACQUIRE payor “CARVE-OUTS”

Fact: Some ASC’s are already Struggling

• Surgeon utilizers of ASC’s are no longer stable
  because of individual and practice dynamics
  – Surgeon loyalty and utilization dynamics
• Competition is increasing
• The Surgeon Factor
  – “Like sport superstars”
  – Must deliver recognized value for payment
    • Performance more important than opinion
Influence of Payors

- In network?
- Out-of-Network!
- HMO referral network?
- Medicare
- Worker comp
- Payor Mix
- Group dynamics

Offer Innovation and Unique Capabilities

- **Wide spectrum of surgical alternatives**
  - I.e. Squaw Peak Surgical Facility, Phoenix
  - SECURE PAYMENT CODES OR BUNDLED CARVE OUTS
- **Surgical Pain Management**
  - Identify pain generator
  - Diagnostic and therapeutic Injections
  - Least invasive, most cost effective procedures
- **Mis Solutions for FBSS**
- **Spondylo-discitis**

Payors will take notice

- They are all interested in value based cost
- May have to challenge payers directly through patient advocacy
- Request written reason for payment denial
- Be ready to engage patient for a legal challenge, especially if the patient pays cash for a procedure not available by the insurance company
- “Gap exception”
Become Adequately Trained

- Not All providers can deliver all that is promised
- The surgeon factor is very important such that the surgeon can deliver on his or her “promise”
- Know the indications and success rate of each procedure recommended
- Be willing to “warranty” the expected outcome of the procedure

Eg. Transforaminal Decompression: Opportunities and Challenges

- Spine Courses and Cadaver workshops
- International Intradiscal and Transforaminal Therapy Spine Society (IITTSS.org)
- Formerly International Intradiscal therapy Society (IITS.org)

Endoscopic Transforaminal Decompression and stabilization

- Decompress intervertebral disc (Intradiscal Therapy)
  - Annular tears
  - Painful disc protrusions
    - Precursor to HNP
- All types of HNP (multi-modal)
  - Central
  - Paracentral
  - Foraminal
  - Extra-foraminal
  - Extruded HNP
Endoscopic Transforaminal Decompression

- **Foraminal Stenosis** (underestimated)
  - Result of normal aging, present in patients over 65
  - COMMON CAUSE OF FBSS
  - Presents with lumbar spondylosis, facet arthrosis
    - Back pain and buttock pain
- **HNP—all types** (begins with discogenic pain)
- **Foraminolopasty**
- **Recurrent HNP**
- **Synovial cysts** (recognized and unrecognized)

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Best consistent outcome procedures

- Discogenic pain
- Contained HNP
- Foraminal stenosis
- Failed back surgery from recurrent HNP and lateral stenosis
- Axial back pain from lumbar spondylosis
Endoscopic Foraminal Ablation

- Dorsal Ramus (medial branch)
- Visualized in foramen, posterior lamina on facet, or on transverse process
- Differentiate from anomalous and furcal nerves
  - Probing under local anesthetic
  - Dorsal ramus

Endoscopic Dorsal Rhizotomy

- Combine with visualized foraminal rhizotomy
- Why visualized?
- Nerves Ventral to intertransverse ligament
- Anatomic variations
- Pulsed RF by fluoroscope not aggressive enough nor consistent
  - Nerve may be protected by osseous tunnel

Variations in Normal Anatomy necessitates endoscopic visualization for best results
Pitfalls: Anomalous nerves in foramen

Autonomic nerves

Furcal nerves

Perform all surgery under local anesthesia

Know when to quit

Transforaminal Decompression: Opportunities and Challenges

• Challenges:
  – Not well understood by traditional surgeons and interventionalists
  – Not taught in formal medical or surgical training
  – Developed in a competitive private practice environment where marketing hype confuses patients and creates opposition by KOL’s
  – RESULTS MUST BE PREDICTABLE or “guaranteed”
Transforaminal Decompression: Opportunities and Challenges

• Challenges:

• Reimbursement issues!
  – Different opinions from individuals, competing spine organizations and scope manufacturers
  – Surgical codes vs interventional pain codes
  – MEDICAL TOURISIM
  – CASH IS KING

Transforaminal Decompression: Opportunities and Challenges

• FORAMINAL STENOSIS (ACCOMPANIES CENTRAL STENOSIS)
  – Result of normal aging (including disc protrusion)
  – Presents with symptoms of back pain and sciatica
  – More common than appreciated
  – Early decompression results predicted by TFESI

• COMMON CAUSE OF FBSS relieved by foraminal endoscopic decompression
  – Translaminar decompression often fails to decompress the lateral recess

Offer Wide spectrum of procedures
Add Endoscopic Capabilities

- Surgical Training needed
- Extensive Special Equipment Needs may dictate development of independent special centers for qualified surgeons to utilize
- Successful outside USA (Asia)
- Owned by Entrepreneurs, utilized by surgeons

Adopt New and Evolving Concepts

- Avoid, address “turf battles” in your area
- Secure reasonable payment codes
- Current CPT-10 codes may devalue CPT-9 RBRVS
- NEW codes likely to be devalued for reimbursement even though innovation will bring added value
- May require Regional carve-outs
- Negotiate bundled payments with local payors
  - Surgeon payment
  - Facility payment

Differentiate your ASC from Others

- Traditional surgery taken to an out patient facility
  - Lowest form of competition
- Least invasive/ most effective
- Safest, with least complications
  - Operate under local anesthesia only
- Most cost effective by surgically treating the pain generator after failure on nonsurgical treatment
  - Prove efficacy by your results
Subscribe to a MIS philosophy

- Offer and be capable of performing the least invasive, most effective procedure as an option for your patient
- Transforaminal versus translaminar approach
- Local versus general anesthesia
- Affiliate and cooperate with other providers with same goals and philosophy
  - Multidisciplinary partners

Transforaminal Decompression

- Inside-out technique
- Outside in Technique
- Combined “targeted” technique with emphasis on “inside out” or “out side in” philosophy
- Cooperate with EBM validated studies under IRB with academic sponsorship
  - Ie. UNM and Yale endoscopic centers
    - Trained by leading MIS pioneers

“YESS” Philosophy and Technique

- Correlate Results of Diagnostic and Therapeutic Injections with imaging studies
- Percutaneous transforaminal decompression as the least invasive technique
- Stage surgical procedures to avoid performing the last procedure first
- Treat the pain generator, NOT just the MRI, X-Ray, or imaging studies only
The Future of Transforaminal Endoscopic Surgery is Here

- **Intradiscal therapy** (chymopapain)
  - Sed™ with thermal annuloplasty
  - Foraminal rhizotomy
  - Disc shunt (Aleeva)
  - Ozone (Minimus Spine)
  - Biologics (stemcells, bone marrow aspirate)
- Nucleus Augmentation, regeneration
  - Replication Medical (Gelstik)
  - Biologics

The Future of Transforaminal Endoscopic Surgery is Here

- Wireless percutaneous neuromodulation: **Stimwave**
  - Wireless modulation of DRG, subcutaneous epidural
- Percutaneous MIS dynamic stabilization (**Replication Medical**)
- Percutaneous Fusion, Stabilization
  - Amendia's O-Lif
- Expandable intervertebral cages
- Better disectomy and end plate preparation devices (**X-Tool™**)
- Better decompression (**surgifile**)

The learning curve
(Long and shallow, not steep)

- Learn how to do diagnostic and therapeutic injections first (NOT by ISIS guidelines)
- Follow with decompression of patho-anatomy
- Nerve ablation by thermal modulation
- Direct decompression of lateral and subarticular stenosis versus indirect (Limit indirect decompression where possible)
- Incorporate transforaminal surgical skills for new procedures and implants
Thank You
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