FAILED BACK SPINE SURGERY (FBSS)

INVESTIGATION AND CLINICAL ASSESSMENT

MAHALAPYE 2013

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PERSPECTIVE

As many as 50% of FBSS patients, on review of original history, clinical assessment, diagnostic studies, have not met the generally accepted criteria for a primary surgical procedure.
THERAPEUTIC GOALS

Pain relief

Neurological improvement
HISTORY

• Go back to beginning
• Chronologically piece the story together
• Approach as if your 1st contact with patient
• Acquire all the previous clinical notes/ op notes
• Make contact with the previous surgeon
• Input from the GP/physio/chiro, re analgesia usage secondary gain
HISTORY

• Current complaints, relative to before surgery/ after surgery
• When the problems started
• What % of residual problem is still present

• Gain insight into pain behavior
  substance usage
  psycho-social issues

NB. NOT TO EXCLUDE FROM Rx
CLINICAL EXAMINATION

• Patient must undress
• Complete assessment of the patient
• No assumptions
• Expand the examination
• Compare findings
CLINICAL EXAMINATION

• Determine whether the patients problem is indeed spinal.

• Think about gynecological
  abdominal
  vascular
  orthopedic
  systemic causes
PURPOSE
OF THE INVESTIGATIONS

Residual of the previous problem
New problems assoc with the interventions or
Missed problems
Arachnoiditis
Fibrosis
Nonunion
Instrument failure
Infection
Flat back deformity
LIKELY DIAGNOSIS

ANATOMICAL

Difficult with 1\textsuperscript{st} surgery

More complex with recurrent problems
LIKELY DIAGNOSIS

TIME OF PRESENTATION

Immediate
- incorrect diagnosis
- poor technique

Short term relief return of pain
- ? Infection

Medium term
- re-herniation
- fibrosis
- arachnoiditis

Long term
- instability
- stenosis at adjacent level
- ongoing degenerative change
• **66 yr female**
Myasthenia gravis
Chronic cortisone usage
Osteoporosis with compression fracture
Previous lumbar fusion
Referred as paraparetic

Back pain ++, and inability to walk
Power 5/5
Touch & pin prick normal
No myelopathy
MANAGEMENT ??

1. conservative Mx

2. decompression T11/T12

3. decompression T11/T12 and fusion T11/T12

4. other
LATERAL RECESS STENOSIS

Verbiest 1940

Still remains the most common cause of "failed back syndrome"

failure to recognise the entity
failure to adequately decompress the recess
LATERAL RECESS BORDERS

- Lateral: Pedicle
- Posteriorly: Superior articular process
- Anteriorly: Vertebral body
- Medial: Thecal sac

Courses obliquely downwards and laterally.
INVESTIGATIONS

Xrays
- LUMBAR: AP, FLEX, EXT
- PELVIS: AP

BLOODS
- FBC, ESR, CRP, Alk phos, + other.
INVESTIGATIONS

MRI    standard protocol
       use of coronal cuts

CT Myelogram

BONE SCAN for specific indications
       inflammatory\infective
Precise correlation of history, clinical findings and investigations is necessary now more than ever; especially because of the sensitivity of MRI.

Non specific spondylotic changes often do not correlate with the patients symptoms, nor the need for surgery.

MRI should be used to CONFIRM the clinical diagnosis.
RECURRENT DISC
PERIDURAL FIBROSIS
INVESTIGATIONS

ELECTROPHYSIOLOGY

Little value--------extremely valuable

Very operator dependent
Later the better
Differentiate; root; cauda equina; peripheral nerve
INVESTIGATIONS

• Always interpret scans, x-rays yourself
• Mindful of costs
• Treat the patient not the images
• “Tight fit” symptoms
  signs
  investigations
INVESTIGATIONS

PHYSIOLOGICAL TESTING

Discography  no credible evidence

Nerve root blocks  no credible evidence

Facet blocks  direct intra-articular
INVESTIGATIONS

• Psychological testing
  no credible evidence to submit all patients to a battery of tests.

  If clinicians concerned then refer to psychiatrist
22 years old  football injury = onset LBP

25 years old  declined admission to military due to back “issues”
neurosurgical & orthopaedic opinion, nonsurgical

28 years old  Following intensive rehabilitation program = Fit for active Naval duty
later same year boat rammed in military action
LBP exacerbated

Different neurosurgeon consulted

Neurologically intact. Vague findings on spinogram
underwent left laminotomy L4/L5 L5/S1  [1]
Very slow recovery - ++ muscle spasm

+- 1 Year later  Returned to first surgeon who questioned “indication for Sx without doing
more sensitive investigations

AP & Lateral x-rays - essentially normal, no degenerative disease,
no spondylosis, no lithesis.
Progressively worsening symptoms LBP; conservative Mx with steroids, corset

37 years old
L5/S1 disc space collapsed; early osteophyte formation
Co-morbidity - Addison’s disease
Medication - long term use corticosteroid

Surgical Intervention
Posterior fusion L5/S1 and left SIJ fusion - Wilson plate
   L5 Spinous process wire
   No artificial disc (Fenstrom balls)
Stormy recovery UTI;
   deep wound infection necessitating repeated packing and secondary closure

Rehabilitation followed with symptomatic treatment of muscle spasm & trigger points
3 Years later
Recurrent abscess of lumbar spine wound (Staph Aureus)  \{5\}

4 years later
• Increasing dependence on amphetamines; steroid injections & alternate therapies
• Episodes of using crutches to walk.

5 years later – Change of physician

- consensus – **No more surgery**

- focus shift away from chemical management to water aerobics; strengthening & flexibility exercises

- use of external bracing corset

- getting on with life .....................
“His continued, exceedingly high level of activity not only illustrates his personal determination but also serves as a notable demonstration that such patients can maintain a substantial functional status despite their physical incapacity.”

Robert A Hart. The Orthopaedic Forum, JBJS, 2006
Inappropriate patient selection

Neurologically intact, however based on an air spinogram underwent left sided laminotomy L4/L5 and discectomy L5/S1
Addison’s disease
Family pressure to run for congress

Incorrect pre op diagnosis / Inadequate work up
Normal Xrays. limited investigations

Unrealistic patient expectation
Immediate return to work, congress, senate, president
Reported hectic social life

Surgical complications
Very slow recovery / spasms, UTI, wound infection
INVESTIGATE EARLY

Establish accurate diagnosis early, and propose and institute Rx and Mx program before the pain and behavior becomes fixed.

The patient must retain confidence in their surgeon
INVESTIGATE EARLY

Advise and guide your patient

- Inappropriate surgery
- Inappropriate alternative interventions
- Financial implications
Recognize the limitations and benefits of surgical intervention.

If there is not a neural compressive problem, or a mechanical instability problem, then surgery will contribute to the devastating FBSS.
THANK YOU
Cure your spine problem within 20 min.

Mrs. Nirupamma had a sudden fall while walking and was immediately hospitalized. She was diagnosed with Acute Lumber discs prolapse between third and fourth vertebra with paralysis of left knee muscles (Quadriceps) which had resulted in the fall. Under normal circumstances she should be needing emergency surgery for the disc but to her good fortune she contacted Dr. Prasham Shah—an Orthopaedic & Arthroscopic Surgeon who was confident that surgery was not essential and that there were alternate methods of treatment. She was taken to the operation theatre and with help of imaging technique was given injection of Ozone in the offending disc. The procedure was done under local anesthesia and it took all of 20 minutes. Immediately on administering the injection her pain disappeared and she could turn and sit in bed: actions that were impossible to perform when she suffered the fall. In three days she started walking normally and her paralysis disappeared.

Dr. Prasham Shah is the First Indian Orthopaedic Surgeon to bring Ilizarov technique (Russian) and Ozone therapy in INDIA. On our correspondent inquiring about the safety of this procedure, Dr. Shah said, “since Ozone is made up of three molecules of Oxygen, injecting it in the disc has No side effect at all. As a matter of fact the third molecule takes away the water content of disc which is 80% of the total disc, thus collapsing the disc & relieving the pressure on the spinal cord. Even MULTIPLE DISCS CAN BE TREATED WITH OZONE INJECTION, enabling the patient to avoid going through the trauma of surgery and spinal instrumentation. Spinal canal stenosis can also be treated with ozone injection in Epidural space claims Dr. Shah.

Dr. Shah HA S TREATED MANY PATIENTS WHO HAVE PREVIOUSLY FAILED SPINAL SURGERY, simply by introducing ozone in disc and epidural space. In more than 600 patients treated with Ozone, he claims 85 to 90% success rate. He also added there were other multiple uses of Ozone in Orthopaedic conditions like: RHEUMATOID ARTHRITIS, OSTEOPOROSIS, AVASCULAR NECROSIS, DIABETIC & ALCOHOLIC NEURITIS Etc.

For Further Information, Contact:
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Do you have any query? Send in your question to Dr Prasham Shah at prasham@prashamshah.com or visit www.prashamshah.com or Call at +91 9820844339
Inadequate work up

- Nov 1944 - returned to first surgeon who questioned “indication for Sx without doing more sensitive Pantoque myelogram”

- Did not follow up on what had previously been done / decided
Incorrect preoperative diagnosis

- AP & Lateral x-rays - essentially normal
  no degenerative disease, spondylosis, spondylolisthesis
Unrealistic patient expectations

• SX 1944 - Immediate return to work – ran for Congress 1945
• Surgery 1954 - Serving senator 1953 to 1957
• Ran for President 1960
• Reports of hectic social life
Surgical complications

• 1944 - Very slow recovery - ++ muscle spasm

• 1954 – Infection and UTI
Comorbidities

- Co-morbidity - Addison’s disease

- Medication - long term use corticosteroids
  - no evidence osteoporosis
Psycho-socio-economic factors

• Personal / other pressure to continue regardless
• Unrealistic expectations
• Dependency on cortisone and amphetamines
• Failure to adapt lifestyle to back
Previous surgery

- 1944 - Left sided laminotomy L4/L5 and discectomy L5/S1

- October 1954 - Posterior fusion L5/S1 and left SIJ fusion
Previous infection

• 1954 - Deep wound infection necessitating repeated packing and secondary closure
• 1957 – Recurrent abscess of lumbar spine wound (Staph Aureas)