THE TWO MAINS QUESTIONS BEFORE THINKING OF SURGERY

- WHICH PUENDAL NEURALGIA CAN BE IMPROVED BY SURGICAL DECOMPRESSION?
- WHICH SURGICAL PROCEDURE WILL GIVE THE BEST RESULT?

AETIOLOGY OF PUENDAL NEURALGIA

- PN DUE TO ENTRAPMENT: Is the only situation where the surgical decompression can be effective
- PN WITHOUT ENTRAPMENT: Does exist and should not be treated by surgical decompression
  - Musculoskeletal
  - Psychological
  - Traumatic
  - Tumoral
- PN OF UNKNOWN ISSUES?

AETIOLOGY OF PUENDAL NEURALGIA

- PRIMARY MUSCULOSKELETAL DYSFUNCTION
  - Pelvic disease
  - Pelvic floor dysfunction
  - Reaction to psychological disease
- SECONDARY MUSCULOSKELETAL DYSFUNCTION
  - Musculoskeletal
    - Depressive state
    - Personality disorders
    - Brain Derived Neurotrophic Factor?
  - Psychological
    - Direct traumas
    - Obsterical issues
    - Radiotherapy
    - No direct surgical traumas
- TRAUMATIC
  - Cloacogenic Carcinoma
  - Malpighian Carcinoma
  - Prostatic Bladder Cervix Fibrosis Nodule
  - Endometriosic Nodule
- TUMORAL

AETIOLOGY OF PUENDAL NEURALGIA

- PN WITH ENTRAPMENT
  - In the claw between the sacrospinous and sacrotuberous ligaments DUE TO THE SACROSPINOUS LIGAMENT
  - In the Alcock’s Canal DUE TO THE FALCIFORM PROCESS
HIGH PRESSURE DUE TO FIBROSIS RETRACTION OF SSL AND FALCIFORM

OBJECTIVE OF SURGERY
- OPENING THE RETRACTED FIBERS OF SSL AND FALCIFORM TO REDUCE THE PRESSURE IN THE ENCLOSURE OF THE PUDENDAL CANAL

BEST APPROACH FOR SUCCESS
- AFTER TRYING TRANSGLUTEAL, TRANSPERINEAL AND LAPAROSCOPIC UNTIL 1998, WE FOUND TI.R THE MOST DIRECT AND EFFECTIVE

THE 4 APPROACHES FOR DECOMPRESSION

Trans-ischio-rectal decompression:
- 384 cases
- Median posterior vaginal incision
- Horizontal perineal incision (male)
- Section of recto-vaginal ligament and entry in the ischio-rectal fossa
- Dissection of the internal side of the pelvis and the sacro-spinous ligament (SSL)
- Opening of the pudendal tunnel by section of the inferior edge of SSL
- Decompression of the inter ligamental grip by progressive rising section of the SSL under endoscopic control
- Decompression of the Alcock tunnel after section of the Falciform process and conservative mobilization of the elevator ani
- Objective: decompression

Intraoperative endorectovaginal time conduction before decompression: 11.30 ms
Intraoperative endorectovaginal time conduction after decompression: 6.50 ms

Post operative period
- Drainage and discharge at D4
- Less post operative pain (catheter for antalgic infusion with implanted chamber in 36 cases)
- Urinary infections: 8 cases
- 6 Haemorrhage complications (1.5%)
- 8 Ischio rectal fossea abscess (2%)
Haemorrhagic complications

- 1 intra-operative lesion: Internal Pudendal artery
- 5 secondary haemorrhages (D1, D4, D5, D8, D10)
  - Embolization
    - Ischiatic artery (1)
    - Inferior gluteal artery (1)
    - Branches of Internal Pudendal artery (3)
- 1 transfusion

Outcome: Evaluation of the results

- Visual Analog Scale (VAS)
- Dallas Pain Questionnaire
  - Dysruction rate (%):
    - Activities of Daily Living
    - At work or in leisure activities
    - Emotional health
    - Effect on relationship

Outcome: evaluation of the results

- Significant improvement = painless or improvement of the pudendal pain > 50% of the initial levels (VAS + « Dallas »)
- Cured: painless = complete recovery
- Lost touch with 6 patients

Recording of the results:
- T6: First 6 months post-op
- T12: > 1 year after surgery
- T24: > 2 years after surgery

Outcome: The results

- Overall results: 294/378 Improvements (78%)
  192/378 Recoveries (51%)
- T6 (6 months): 46/67 Improvements (69%)
  29/67 Recoveries (43%)
- T12 (1 year): 216/258 Improvements (84%)
  147/258 Recoveries (57%)
- T24 (2 years): 156/182 Improvements (86%)
  107/182 Recoveries (59%)

Outcome: The results

- Increasing of pain: 2
- No improvement overall: 84 cases/378
- No improvement at 1 year: 42 cases/258
- No improvement at 2 years: 26 cases/182
- 21% (79 cases) experienced post-op other issues of pain:
  - Piriformis syndromes: 41 cases (11%)
  - SIJ dysjunction: 0
  - Other pains: 18 cases (5%)
  - Adenomyosis: 56 cases (15%)
Outcome: Effects on continence, rectal and sexual dysfunctions

- Urinary incontinence: 59 cases pre-op
  - Stress I (38): improved 22 / aggravated 0
  - Urgency I (21): improved 16 / aggravated 0
- Anal incontinence: 32 cases pre-op
  - Improved 19 / Aggravated 9
- Post-op 2 cases (improved in the 3 months)
- Rectal dyschezia: 52 cases pre-op
  - Improved 14 / Aggravated 8
- Sexual dysfunction:
  - Pre-op orgasm dysfunction: 71 / Improved 59
  - Pre-op erection dysfunction: 42 / Improved 37

TO EXPLAIN THE BEST RESULT WITH TIR

- Surgery only for pudendal neuralgias due to entrapment
- Effective, complete and direct action on LSS and falciform process
- Save sacro tuberous ligament
- No neurolysis
- Intra operative PNML Tests +++
- Most difficult technic for the operator but less aggressive for patient

Conclusion 1
Requirements for Pudendal Surgery in 2006

- Reduce the pressure in the pudendal canal
- Avoid any dissection of the nerve itself
- Make sure of the complete decompression of all the sites of entrapment
- Use a non invasive procedure to avoid important musculoskeletal reactions
- If possible control the normalization of the latencies

Conclusion 2
Management of PNE requires a multi-disciplinary approach:

- Physical Therapy, medical management, and lifestyle modifications
- If conservative management fails, T.I.R procedure can give improvement in up to 80% of patients with PNE
- Post-operative rehabilitation is required to normalize secondary musculoskeletal dysfunction from nerve entrapment

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