

## CHRONIC PELVIC PAIN CAUSED BY PUDENDAL AND PELVIC PLEXUS NEUROPATHY AS NEUROLOGICAL SEQUELAE OF ANORECTAL SURGERY.

### Hypothesis / aims of study

While advances in minimally invasive technique in ano-rectal surgery (ARS) have recently gained world-wide success, the occurrence of proctologic (faecal incontinence, obstructed defecation), urological (urinary urgency, incontinence), sexual post-surgical dysfunctions and chronic pelvic pain as well as neurological sequelae remains high.

Moreover pts who undergo subsequently pelvic surgery, with previously radiotherapy, known neurological disease or sacral/pelvic trauma are at major risk to develop a complication after ARS.

New attainment of neurophysiology and neuroanatomy of perineal and pelvic area, play essential role in avoiding and reducing comorbidity.

Objective of the present study is to evaluate the prevalence of pelvic postoperative Pudendal and Pelvic Plexus Neuropathy (PPPN) is not known.

### Study design, materials and methods

From 2001 to 2008 431 pts (244 female, 187 male, mean age 46,7 yrs) were addressed to our neurophysiology laboratory and underwent a thorough neurophysiologic evaluation of pelvic floor to a suspected neurogenic Chronic pelvic pain: for 299 pts (69,37%) it was the major post- proctologic surgical complaint.

Somatosensory Evoked Potentials of Pudendal nerves (SEPs), Sacral Reflexes (SR), Electroneurography of Pudendal nerves (ENG), Electromyography of perineal muscles (EMG), Sympathetic Skin Response (SSR), Motor Evoked Potentials of pelvic floor (MEP) were assessed.

### Results

PPPN were found in 96% of pts as sequelae of proctologic surgery, in 32 pts a Stapled Transanal Rectal Resection (STARR) was previously performed. Neurophysiologic assessment was more sensitive rather than clinical evaluation in revealing altered motor and sensory pathway to pelvic area.

Neurophysiologic alterations showed a unilateral neuropathy in 85% of pts.

SEPs were pathological in 32%, EMG in 89%, ENG in 85%, RS in 75%, SSR in 92%.

### Interpretation of results

Chronic Pelvic Pain due to iatrogenic neuropathy is not unusual as a post-operative complication of ano-rectal surgery.

### Concluding message

Neurophysiologic assessment of the pelvic floor is able to clarify the pathophysiology of post-operative chronic pelvic pain due to PPPN and to address to suitable therapy.

A better knowledge of the risk related to an iatrogenic neuropathy as a consequence of particular proctologic surgery is mandatory to a proper selection of patients and of the technical approach.

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<b><i>What were the subjects in the study?</i></b>	<b>HUMAN</b>
<b><i>Was this study approved by an ethics committee?</i></b>	<b>No</b>
<b><i>This study did not require ethics committee approval because</i></b>	<b>diagnostic procedures</b>
<b><i>Was the Declaration of Helsinki followed?</i></b>	<b>Yes</b>
<b><i>Was informed consent obtained from the patients?</i></b>	<b>Yes</b>