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References:
1. XEFO 4 and 8 mg Tablets South Africa Package Insert, October 1998.
2. XEFO 8 IV/IM Injection South Africa Package Insert, October 1998.
3. XEFO RAPID Tablets South Africa Package Insert, September 2012.
I give me great pleasure to share the next edition of Nociceptive Views with you, our loyal readers. This is the first edition that I am editing and its been an absolute pleasure to work with the team that brings everything together. It would be remiss for me not to acknowledge and thank the previous editor of Nociceptive Views – Dr Pauline Du Plessis – for the outstanding achievements with previous editions.

Pain is a very personal and intrusive experience. It can often destroy a person’s life and also significantly affect the lives of those around the pain sufferer. It is therefore important that, as health care providers, we are cognisant of the profound impact that chronic pain conditions can have on a family unit.

In this edition, Elna Rudolf and Catriona Boffard are exploring the often taboo subject of pelvic pain syndromes associated with sexual dysfunction. While there are a number of causes for these pain syndromes, the ultimate emotional and psychological impact that it can have on a patient and her partner is traumatic. Having a systematic approach to the diagnosis and treatment is an important part of the management of these patients.

As with all pain syndromes, a multidisciplinary approach to management is generally the most appropriate way to manage these patients. Using interventional pain management procedures may sometimes form part of this treatment regime. Eric Wilson’s article on interventional management of complex and unremitting abdominal pain in women demystifies some of the treatment options available in this class of therapy.

Corina Avni will also address an essential part of pain management in pelvic pain syndromes in her article “Pelvic pain and rehabilitation – from the depths below”.

A woman’s right to decide about her own body is an important part of modern culture, and as health care providers we should understand our responsibilities in this regard. Professor Christina Lundgren has provided a detailed explanation of the laws around consent for termination of pregnancy in South Africa.

Lastly, we end this edition with a report from Dr Janieke Van Nugteren (Congress Chair: Pain SA 2018 congress) on the very successful Pain Congress held in Gauteng earlier this year.

I hope that you will enjoy reading this edition of Nociceptive Views, as much as we enjoyed putting it together for you.

Regards
Sean
Interventional management of complex and unremitting abdominal pain in women

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Rondebosch Multidisciplinary Pain Clinic
Cape Town

Abdominal, visceral pain is a common clinical problem that is often poorly localised and benign but can be the symptom of serious underlying pathology. Unremitting pain in the abdomen broadly describes pain that may extend from the diaphragm to the pelvic floor and perineum, intra-abdominally, superficially in the abdominal wall, from anatomy supplying, traversing or supporting this space or from the central nervous system. Pain in these areas may also manifest in other areas outside of the abdomen particularly from the retroperitoneal space. Evolutionary and embryological developmental origins and variances explain some of the complexities of these disorders. By the time abdominal pain is referred to a pain clinic, many differential medical and surgical diagnoses and specific or empirical trials of treatment will have been attempted. In this brief review of interventional therapies, the comprehensive work up of acute and chronic abdominal pain and a variety of pharmacological and cognitive behavioural therapies are not discussed. Comprehensive reviews are available in the links provided in the references.1,5

In general, the patients age, fertility status and benign vs neoplastic origin provide the initial segmentation of the differential diagnosis and management. Nausea, vomiting, pallor, sweating and autonomic features of visceral pain are commonly associated.

**Neurology of abdominal pain**

Visceral primary afferent pathways originate from polymodal receptors feeding small, thinly or un-myelinated fibres, in and around the abdominal organs coalescing into autonomic nerves and ganglia that are predominantly sympathetic but

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Representation of visceral sensory innervation of the gastrointestinal tract. The sensory innervation that anatomically exists in association with the sympathetic nervous system is shown on the left. These spinal visceral sensory fibres traverse both prevertebral (CG, coeliac ganglion, IMG, inferior mesenteric ganglion, SMG, superior mesenteric ganglion) and paravertebral ganglia en route to the spinal cord. Pelvic and vagus nerve innervation to the sacral spinal cord and brain stem, respectively, is shown on the right.
include parasympathetic and interlinking with undifferentiated wide dynamic range neurons. Viscerosomatic convergence at the spinal cord can produce pain in somatic areas whose central connections overlap in the spinal cord.

The autonomic innervation to the upper foregut is via the sympathetic (greater and lesser splanchnics) nerves meeting the vagus nerve at the coeliac plexus. It is composed of pre and post ganglionic sympathetic fibres, preganglionic parasympathetic fibres and visceral afferent pain fibres.

This combined innervation extends diffusely through the mesenteries and associated ganglia (superior and inferior mesenteric ganglia) alongside its rich blood supply. This also represents a component of the immune-CNS interface whose effects are now recognised and being intensively investigated. The least splanchnic nerve has few contributions to the coeliac plexus and continues to reach the kidney and adrenal gland in the retroperitoneal space.

The lumbar sympathetic, hypogastric (superior and inferior) and ganglion of impar provide the sympathetic innervation to the lower bowel, bladder and sexual organs of the pelvis. While diagrammatically, the upper bowel parasympathetic supply (via the vagus) terminates in the coeliac ganglion, this is not functionally accurate as its sensory and afferent fibres are diffusely distributed throughout the mesenteries, concomitantly with the pelvic parasympathetic outflow and having bidirectional flow in the autonomic visceral nerves of all types.

The aim of interventions is signal attenuation as specific as possible to the nerve and/or blood supply associated with the pain and the degree of which is cognisant of the risks associated. Many interventions used today were classically described using anatomical landmarks. Today almost all interventional procedures utilise imaging under local or regional anaesthesia or conscious sedation. General anaesthesia is used infrequently. Fluoroscopic and ultrasound guided procedures are most common, however for some procedures CT guidance is used. In all cases, blockade is the first step to assess the potential efficacy of more destructive and permanent destructive lesioning. These procedures are not considered first line management and require rigorous training and clinical infrastructure to manage the risk of complications. Complex pain is best managed by comprehensive multidisciplinary teams. The most common procedures are described to give an understanding of the interventional approaches.

### Table 1. Broad classification of abdominal pain treated by interventional approaches

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<th>Functional foregut and gastrointestinal disorders</th>
<th>Functional genitourinary disorders</th>
<th>Traumatic and other pelvic pain</th>
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<td>Pancreatitis</td>
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<td>Irritable bowel disease</td>
<td>Chronic interstitial cystitis</td>
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<td>Vulvodynia</td>
<td>Pudendal neuralgia straddle injury and vaginal delivery injuries</td>
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<td>Renal and adrenal bed pathology</td>
<td>Chronic coccydynia</td>
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<td>Ureteric and bladder pathology</td>
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</tr>
<tr>
<td></td>
<td>Oncology direct &amp; indirect</td>
<td>Radiation neuritis</td>
</tr>
</tbody>
</table>

### Table 2. Interventional treatment approaches

<table>
<thead>
<tr>
<th>Functional foregut and gastrointestinal disorders</th>
<th>Functional mid/lower GIT, genitourinary disorders</th>
<th>Traumatic and other pelvic pain</th>
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<tr>
<td>Greater &amp; lesser splanchnic blocks, neurolytics, PRF &amp; RF lesioning</td>
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<td>Tumour intra-lesion thermal &amp; cryo lesioning</td>
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</tr>
<tr>
<td>Paravertebral &amp; epidural blocks &amp; infusions</td>
<td>Sympathetic blocks, RF/PRF lesioning, neurolytics to lumbar, hypogastric &amp; Impar ganglia</td>
<td>Selective pudendal nerve root block, PRF/RF</td>
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<tr>
<td>Retrocrural/retroperitoneal cannula infusions and pumps</td>
<td>Spinal cord stimulation</td>
<td>Pelvic peripheral, sacral or spinal cord implanted modulation devices</td>
</tr>
<tr>
<td>Intra-abdominal catheter infusions &amp; pumps</td>
<td>Pelvic stimulators (neuroaugmentation)</td>
<td>Unilateral oncology - cordotomy</td>
</tr>
<tr>
<td>Spinal cord stimulation</td>
<td>Intradiscal blocks and pumps</td>
<td></td>
</tr>
<tr>
<td>Vagal nerve stimulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrathecal blocks and pumps</td>
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</tbody>
</table>
Greater and lesser splanchnic blocks, neurolytics, PRF and RF lesioning
The splanchnic ganglia are the preganglionic nerves of the coeliac plexus that originate from T5-T10 and T10-T11 respectively, traversing the diaphragm crus to innervate the coeliac plexus bilaterally and ipsilaterally. Blockade and ablation of these predominantly sympathetic ganglia are more specific than at the mixed autonomic coeliac plexus and most commonly considered for pain of chronic pancreatitis, cancer of the pancreas, upper and mid bowel and intractable endometriosis.

A diagnostic step for anterior disc vertebral body referred pain exclusion in the work up of complex abdominal pain is a rami communicans block in the low thoracic and lumbar area. The technique is similar to a splanchnic block but positioned along the disc margins. Thermal or lytic lesioning is then an option for related intractable.

Hypogastric block and Neurolytic injection (6% Phenol in glycerine)
The bilateral hypogastric sympathetic plexus lies anterior to the fifth lumbar and upper S1 segment. The plexus is commonly in communication across the midline and in with the lumbar plexus proximally and inferior hypogastric plexus distally. It is a component of the visceral innervation of the lower colon and ano-rectum, uterus, ovaries and bladder. Blockade and ablation is indicated for the treatment of intractable lower pelvic and gentio-urinary pain.\(^\text{14,15}\)

Pudendal neuralgia – Pudendal nerve block at Alcocks (pudendal) canal.
Chronic pelvic pain made worse by sitting, improved by standing or largely absent when recumbent or classically when on a toilet seat. It is associated with perineal and genital paraesthesia, faecal and urinary incontinence. The pudendal nerve may be damaged during straddle injuries or bicycle saddle injuries, vaginal delivery, and entrapment syndromes.\(^\text{12}\)
Ganglion of Impar block and Neurolytic injection (6% Phenol in glycerine)
The ganglion of Impar is the distal fusion of the bilateral sympathetic chains. It is retroperitoneal, lying just anterior to the sacroccocygeal joint. Blocks and ablation of the ganglion of Impar is indicated for intractable sympathetically mediated genital, perineal, ano-rectal, lower pelvic and coccydynia pain. The approach is either laterally or trans sacrococcygeal.

Pelvic Sacral outflow stimulators
Multi-electrode stimulation (neuroaumantation) of the sacral nerve outflow is considered when other medical and other interventional approaches fail to manage the pain adequately. The effect is at spinal cord level of lamina II and III and release of glycine and reduction in glutamate in the CSF during the stimulation. It is not the final step nor is it infallible. Traditionally a S2 or S3 trans-sacral approach perpendicular to Alcocks canal is used, but far lateral intra-sacral, from a lumbar interspace entry or S1 retrograde placement is also used to achieve wider or more flexible coverage. Wave form, frequency and intensity all produce different effects. The European guidelines on neurostimulation (EFNS) is the benchmark for the selection and work up of patients.17

Intrathecal Pain Pump
Delivery of morphine and other pain medicine into the intrathecal space via an internally implanted pump with reservoir time of up to six months and battery life of up to five years. Doses of morphine are 100-300 times less than oral doses for effective pain relief. This treatment approach is only considered if other options have been ineffective and if the patients life expectancy is more than three months. Preceding psychological assessment and ongoing wholistic management and support is essential. This therapy is most often considered for intractable cancer related pain but is used when other options fail for intractable abdominal pain.

Note: These procedures should only be performed by doctors with comprehensive training and certification.

References available on request.
When pleasure becomes pain

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MHSc: Sexual Health (USyd, Aus), Fellow of the European Committee for Sexual Medicine (FECSM)

Catriona Boffard
MHSSH (USyd, Aus), PGDip CBT (RHUL, UK), European Certified Psychosexologist (ESSM/EFS)

In the era of “Fifty Shades of Grey”, more and more people are experimenting with making pain part of their sexual play. This pain should be consensual and inflicted in a controlled manner within the context of an agreement, where the receiver is in complete control of the intensity and duration of the pain.1 There are, however, many millions of women around the world who are experiencing pain during intercourse in an unwanted manner.2 Their pain is as far as it gets from the kinky fantasy created by popular media. Their pain is real and often debilitating, which impacts their quality of life, psychological health and relationships.3

If there is no overt abnormality that can be surgically corrected, patients are often told to seek the help of a psychologist, who may be left feeling as desperate and helpless as the patient in trying to find a workable solution for their pain. The impact of the pelvic organ control centre in the emotional motor system on pelvic pain is undeniable,4 but the reality is that almost all sexual pain disorders have a physiological (not psychological!) basis. A very specific diagnosis can be made in almost all cases. That implies a very specific, evidence-based treatment plan. Hope for the patient. Less frustration for the physician. A win-win for all!

Merely making a diagnosis of vaginismus5 is seldom helpful in the treatment process of the patient. The DSM V has merged the diagnosis of vaginismus with that of dyspareunia as “Genito-Pelvic Pain/Penetration Disorder” with numerous criteria, but very little indication of actual cause and potentially effective treatment.6

Table 1. Vaginismus definition.5
Vaginismus indicates the persistent or recurrent difficulties of the woman to allow vaginal entry of a penis, a finger, and/or any object, despite the woman’s expressed wish to do so. There is often (phobic) avoidance and anticipation, fear, and experience of pain, along with variable involuntary pelvic muscle contraction. The disorder may be lifelong or acquired, generalised or contextual, biologic and/or psychogenic and may (or may not) cause personal distress.

Table 2. Genito pelvic pain/penetration disorder DSM V diagnostic criteria.6
For at least 6 months, a person experiences persistent or recurrent difficulties towards vaginal penetration manifested as at least one of the following:

- Intense fear/anxiety in anticipation of, during, or as a result of vaginal intercourse
- Actual pain experienced in pelvis or vulvovaginal area during attempted or as a result of vaginal penetration
- Marked tensing or tightening of the lower pelvic/inner-abdominal muscles during attempted vaginal penetration
- Diagnostic criteria requires that these symptoms cause the female significant distress.

This condition cannot be better attributed to:

- A nonsensical mental disorder (i.e., posttraumatic stress disorder)
- Relationship distress (i.e. domestic violence)
- Other life stressors impacting a person’s sexual desire
- Any other medical condition

In response to this, the “2015 Consensus Statement on Persistent Vulvar Pain”7 was published with the aim of simplifying the diagnosis of specific sexual pain disorders to direct the physician towards the appropriate treatment options. In a recent US study, patients with vulvodynia were offered a combination of seventy-eight treatment options.8 If we want to get good results without polypharmacy and spending the total of a patient’s annual income on their sexual pain, it is of utmost importance to make a specific diagnosis followed by evidence-based treatment.

Diagnosis
What follows is an explanation of the use of the 2015 Consensus Statement on Persistent Vulvar Pain,9 through the use of a case study of a typical patient seen in practice:

A 26-year-old female presents with extremely painful intercourse for four months after getting married to her husband as a virgin. She started on an anti-androgenic contraceptive pill three months before her wedding. On examination she has allostynia of 8/10 anterior and posterior to her vaginal opening with significant pelvic floor muscle spasm (it is difficult and painful to insert one finger).
The first step is to evaluate if any of the Category A criteria might apply to her:

A. Vulvar pain caused by a specific disorder*

- Infectious (e.g. recurrent candidiasis, herpes)
- Inflammatory (e.g. lichen sclerosus, lichen planus, immunobullous disorders)
- Neoplastic (e.g. Paget disease, squamous cell carcinoma)
- Neurologic (e.g. post-herpetic neuralgia, nerve compression or injury, neurooma)
- Trauma (e.g. female genital cutting, obstetrical)
- Iatrogenic (e.g. post-operative, chemotherapy, radiation)
- Hormonal deficiencies (e.g. genito-urinary syndrome of menopause [vulvo-vaginal atrophy], lactational amenorrhea)
- Neoplastic (e.g. Paget disease, squamous cell carcinoma)
- Inflammatory (e.g. lichen sclerosus, lichen planus, immunobullous disorders)
- Infectious (e.g. recurrent candidiasis, herpes)

- Is there any evidence, from the history or clinical examination, of recurrent genital infections? Microscopy, culture and sensitivity (MCS) and/or or polymerase chain reaction (PCR) of a discharge or herpes PCR on visible lesions can be performed. Expert opinions differ as to the absolute necessity to investigate for infections in the absence of symptoms.9

- Is there a reason to believe that there might be an inflammatory condition like lichen sclerosus, lichen planus or immunobullous disorders? Tip: If the mucosa looks abnormal, take a biopsy to make a definite diagnosis. If the skin looks normal (apart from mild erythema), it is very unlikely anything will be gained from a biopsy.10

- Any suspicious lesion on the genitals that might be neoplastic (like Paget’s or squamous cell carcinoma): Biopsy to confirm diagnosis.10

- Is there any evidence of a specific nerve being involved, like the pain worsening when the patient is sitting, as is the case in pudendal neuralgia? Is there a palpable neuroma? Are we aware of any known nerve injuries? Tip: If the diagnosis is uncertain and funds are limited, try medication for neuralgic pain (pregabalin, gabapentin or amitriptyline) in combination with physiotherapy. If this is not effective, consider further investigation like electrophysiological studies or MRI neurography of the pudendal nerve to confirm the pudendal neuralgia, neuropathy or injury.11

- Is there any evidence of obstetric trauma or of genital cutting or other direct injuries? Is there a need for surgical correction of these, or would the patient benefit more from optimising the health of the mucosa in the injured area? Tip: Try to avoid further surgery.12

- Ask about a history of iatrogenic trauma in the form of genital surgery, radiation or chemotherapy.

- Ask about hormonal deficiencies: Is the patient peri- or post-menopausal? Is the patient taking local or systemic oestradiol and/or testosterone therapy?13

In the case of this patient, none of the above conditions applied. The next step is to examine Criteria B for vulvodynia and which descriptors applied to her:

B. Vulvodynia

Vulvar pain of at least 3 months duration, without clear identifiable cause, which may have potential associated factors.

Descriptors:
- Localised (e.g. vestibulodynia, clitorodynia) or generalised or mixed (localised and generalised)
- Provoked (e.g. insertional, contact) or spontaneous or mixed (provoked and spontaneous)
- Onset (primary or secondary)
- Temporal pattern (intermittent, persistent, constant, immediate, delayed)
*Women may have both a specific disorder (e.g. lichen sclerosus) and vulvodynia

- She has had painful intercourse for four months – first vulvodynia criteria met.
- She has localised pain (she only has vestibulodynia as demonstrated by the allodynia of 8/10 around the vaginal opening).
- She has provoked pain – there is no pain unless there is contact with the vestibule.
- She has primary pain as defined by “pain since the first onset of intercourse or an attempt at penetration”.
- The temporal pattern is persistent. It is not only present in certain situations like a lack of arousal or stress. It is present under all circumstances and does not get better.

These factors are then usually listed together to create a sensible diagnosis, such as in this case:

**Primary provoked vestibulodynia.** That already gives a good indication of the nature of the pain, but it does not elude to a cause yet. One must look at the following potential associated factors to make a more precise diagnosis and find the appropriate direction for the treatment plan:

- Are there signs of these associated pain syndromes: Painful bladder syndrome, fibromyalgia, irritable bowel syndrome, temporomandibular disorder? To optimise the treatment outcome of the vulvar pain, these underlying conditions must be identified and treated.14
- There are three mechanisms through which genetics can play a role: susceptibility to candida infection, tendency
to prolonged periods of inflammation and tendency to overreact to combined oral contraceptives. A sensitive umbilicus is often an indication of the genetic type.14

- **Pharmacologically induced hormonal factors**, especially the use of low-dose anti-androgenic pills.15 From author’s personal experience with almost two thousand patients, this is the biggest cause of provoked vestibulodynia in young women in South Africa.

- **Inflammation** has been demonstrated to be present in women with vulvar pain. There are different mechanisms including increased degranulation of mast cells and an inability to downregulate inflammatory cytokine activity, leading to hyperinnervation of the vestibule.15

- From author’s experience, it is the absolute exception if a patient with persistent vulvar pain does not have a **musculoskeletal** component to their pain. There is almost always a hypertonic pelvic floor with myofascial and neural disruptions. Pelvic function physiotherapy is an extremely effective evidence-based treatment of the musculoskeletal component of vulvar/pelvic pain.17

- In many women, **neurological** mechanisms also play a role demonstrated by changes in the brain, increased general pain perception as well as peripheral **neuroproliferation** leading to increased sensitivity (allodynia).18,19

- **Psychological factors** do play a role in persistent vulvar pain but should not be seen as the cause of it. Anxiety, depression, catastrophising, as well as sexual abuse etc. should be addressed to improve the outcome of patients suffering from pain.20

- **Structural defects** like pelvic organ prolapse might be contributing to vulvodynia and there is some evidence that correcting the prolapse could potentially cure the vulvodynia, but this cause of allodynia has only been reported in a few case studies.21

In this case study, the following associated factors were present:

**Primary provoked vestibulodynia** with the following associated factors:

- Pharmacologically induced hormonal factors (the pill), neuroproliferation (as demonstrated by the allodynia) and musculoskeletal problems with a hyperactive pelvic floor.

We find it helpful to also note if there is vaginismus-type behaviour (e.g. closing of the legs) during the examination or during an attempt at intercourse. In our experience, it is more likely that psychotherapy might be necessary. It is also important to specifically note the presence of depression or anxiety and treat this to improve the outcome.22

**Management and treatment plan**

In our team the patient will receive customised, multi-modal treatment in keeping with current research.21,23 She will be advised to stop the pill and an intra-uterine device will be suggested for contraception.15 She will receive topical oestrogen and testosterone for the hormonal imbalance.24 She will also be sent for pelvic floor physiotherapy27,23 by one of our very experienced team members, as well as work with vaginal dilators28 to address the psychological component and the fear of penetration that has developed. She will be offered sex therapy with her partner, where a reconceptualisation of pain will be facilitated26 and sensate focus used to create a safe environment to first be sensual and intimate and later add intercourse after a period where sex was banned.27 Psychotherapy should also be offered for all aetiologies.28 If first-line interventions fail, botulinum toxin injections29 or vestibulectomy19 might be considered.

This is only one example of a custom-made treatment plan that is developed for a patient with painful intercourse, according to their specific diagnosis. Every patient will be different. If this programme is followed, pain-free penetration is often attained before six weeks on treatment, depending on multiple factors of course.

**Conclusion**

The effective treatment of sexual pain disorders is determined by making the correct diagnosis.

Please note: This paper did not focus on the organic causes for deep dyspareunia (endometriosis, fibroids, cysts, etc). Those should be excluded by gynaecological examination. Due to limitation of length, it also did not focus on the details and evidence base of the various treatment options or on the management of chronic pelvic pain. Once the correct diagnosis has been made however, it is easy to access the latest guidelines for that specific condition.

For more information or any questions, please contact the primary author: elna.rudoloh@mysexualhealth.co.za
References


References 8-29 available on request.

Take-home message

- If a woman complains of painful intercourse, make a specific diagnosis to devise a specific and custom-made treatment plan.
- If you are not able to make a specific diagnosis: Refer (to a colleague with a special interest in sexual pain, not necessarily a psychologist)

Events Calendar 2018/2019
(Dates and event information is subject to change without prior notice. Please confirm event details with the contact information provided)

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<th>Date</th>
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<td>3 November 2018</td>
<td>Bloemfontein Pain Academy</td>
<td>Ilanga Estate</td>
<td><a href="https://painsa.org.za/events/">https://painsa.org.za/events/</a> Telephone: 011 894 1278</td>
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<td>17 November 2018</td>
<td>Port Elizabeth Pain Academy</td>
<td>The Boardwalk Hotel</td>
<td><a href="https://painsa.org.za/events/">https://painsa.org.za/events/</a> Telephone: 011 894 1278</td>
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<td>1 December 2018</td>
<td>Cape Town Pain Academy</td>
<td>The River Club</td>
<td><a href="https://painsa.org.za/events/">https://painsa.org.za/events/</a> Telephone: 011 894 1278</td>
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<td>6-10 March 2019</td>
<td>South African Society of Anaesthesiology</td>
<td>Boardwalk International Convention Centre, Port Elizabeth</td>
<td><a href="http://www.sasaweb.com">www.sasaweb.com</a></td>
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<td>7-10 March 2019</td>
<td>SARAA 2019 (South African Rheumatism Arthritis Association)</td>
<td>The Elangeni and Maharani Hotel, Durban, KwaZulu-Natal</td>
<td><a href="mailto:lauren@eoafria.co.za">lauren@eoafria.co.za</a></td>
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Date: 3rd - 5th May 2019
Venue: Champagne Sports Resort, Drakensberg
Contact: 011 8941278 or Email: painsacongress@velocityvision.co.za

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The Republic of South Africa has very progressive laws governing the termination of pregnancy, and in particular, the consent for termination.

To begin with, one needs to address the question of why one needs consent from the ethical point of view. Essentially the whole issue hinges on the principle of Autonomy. (Autos = self; Nomos = rule)

Autonomy thus implies freedom from the control of others (liberty) and freedom from excessive personal limitations (capacity) and is simply the right to decide for oneself. Beauchamp and Childress in “The Principles of Biomedical Ethics” discuss two important issues – the principle of autonomy and respect for autonomy. Their theories of autonomy involve understanding, reasoning and choice, and that autonomous action is described as acting intentionally, with understanding and without controlling influences that determine one’s actions. Insofar as choice is concerned, there are definitely factors that affect choice such as ignorance (What is the procedure? What is on the consent form?), coercion, temporary or partial incapacity and others. Beauchamp and Childress also allude to the consequences of respect for autonomy. Typically those are informed consent, truth telling (full disclosure) and confidentiality.1

A contentious issue when considering autonomy is its limitations. These may be those affecting the individual, such as immaturity, incapacity, irrationality, ignorance and imposition (coercion and exploitation), as well as those affecting the community, such as endangering public health (unlikely in the case of a termination), potential harm to others and also competition for limited resources.

The Choice on Termination of Pregnancy Act 92 of 1996 (including the 2008 amendment) states as follows:
“A pregnancy may be terminated:
• Upon the request of a woman during the first 12 weeks of the gestation period of her pregnancy;
• From the 13th to 20th week of the gestation period if a medical practitioner, after consultation with the pregnant woman is of the opinion that:
− The continued pregnancy would pose a risk of injury to the woman’s physical or mental health; or
− The pregnancy resulted from rape or incest; or
− The continued pregnancy would significantly affect the social or economic circumstances of the woman
• After the 20th week of the gestation period providing a medical practitioner, after consultation with another medical practitioner or registered midwife, is of the opinion that the continued pregnancy:
− Would endanger the woman’s life; or
− Would result in a severe malformation of the foetus; or
− Would pose a risk of injury to the foetus.”

This last paragraph in the Act is often overlooked when issues of informed consent arise, particularly when the termination equates to a caesarean section, as it may well do, if the woman is more than 20 weeks pregnant. In other words, a 16-year-old eclamptic patient may consent to caesarean section, if she is of sound mind, despite her age, since this falls under the Choice on Termination of Pregnancy Act. In this case, continuing the pregnancy could be a danger to the mother’s life.
The termination may only be carried out by a medical practitioner, except in the case of pregnancies of less than 12 weeks of gestation. In this latter case, a registered midwife who has completed the prescribed training course, may perform the termination.

The Act specifies the **facilities where the termination may be performed**. These facilities need to have been gazetted, and need access to an operating theatre. In the case of a 24-hour maternity facility, there is no need for the facility to be gazetted for terminations of pregnancy.

The Act also states: “The State shall promote the provision of non-mandatory and non-directive counselling, before and after the termination of a pregnancy”.2

In the section of the Act that refers to **consent for the termination**, a few important points are made:2

- The pregnant woman must give informed consent; hers is the ONLY valid consent, provided that she is of sound mind.
- In the case of a pregnant minor (<18years), the minor is advised to consult with parents, guardians or family members, but may consent to the termination without this consultation.

In the case of a severely mentally disabled pregnant woman, or a woman who is unconscious with no reasonable prospect of becoming conscious, the following applies:

- Her pregnancy may be terminated up until 12 weeks of gestation upon the request of her natural guardian, spouse or legal guardian, or her curator personae.
- Where the gestation is 13 to 20 weeks, the act specifies that two medical practitioner, or a medical practitioner and registered midwife who has completed the prescribed course, are of the opinion that the following apply:
  - The continued pregnancy would pose a risk to the woman’s physical or mental health; or
  - There is substantial risk that the foetus would suffer from a severe mental or physical deformity.

In these cases, consent must be obtained from the pregnant woman's natural guardian, spouse, legal guardian or curator personae. The same ruling applies to a pregnant woman where the gestation is > 20 weeks.

The Act emphasizes the importance of **record keeping**, whilst concurrently keeping personal details of the woman involved confidential.

Nobody may prevent a termination or refuse a termination if a pregnant woman is legally entitled to a termination. In the case of practitioners whose beliefs are contrary to this, it is advised that they refer the pregnant woman immediately to an appropriate colleague. Whilst every doctor has a right to Freedom of Conscience, in terms of the Constitution, this right does not supersede the patient’s right to a termination of pregnancy. In the case of an emergency, no doctor may refuse to terminate the pregnancy.4

David McQuoid-Mason published an interesting comment in the SAJBL Forum,3 where he discussed the rights of a pregnant woman who is in a permanent vegetative state, and has an advance directive dictating that she does not want to be kept alive. In this case her wishes should be respected in terms of the Constitution (her right to equality, dignity, privacy and bodily integrity). If she dies and her foetus with her, it does not constitute a termination of pregnancy in terms of The Choice Act, unless an actual termination was performed. He also emphasizes the fact that a foetus is not regarded as a person in South African law, and is not protected by the Constitution or the common law unless it is born alive.

In 2017 C. Dudley, a Member of Parliament, introduced a notice of intent to introduce a Choice of Termination of Pregnancy Amendment Bill.5 This amendment details the type of information that should be made available to the pregnant woman prior to termination. It also challenges the possibility of a viable foetus at 20 weeks, in terms of the massive strides made by medical science. There are also new surgical methods available, in terms of correcting congenital deformities, as opposed to what was available when The Choice Act was passed 22 years ago. Whether this amendment progresses any further, remains to be seen.

**References**

Pelvic pain and rehabilitation – from the depths below...

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Glossary
CPP Chronic pelvic pain
CPPS Chronic pelvic pain syndrome
MDT Multi-disciplinary team
PFM Pelvic floor muscle
PFMs Pelvic floor muscles
PTSD Post traumatic stress disorder

We appear in the midst of an epidemic of chronic pain; be it our local South African issues as a consequence of HIV and (sexual) abuse, or the opiod overdose crisis in America. In 2016 the prevalence of chronic pain in the UK was reported as ranging between 35.0% and 51.3%.1 As a subset of chronic pain, chronic pelvic pain (CPP) is attracting global media attention due to complications associated with trans-vaginal surgical mesh. Regulatory and guidance bodies including the FDA and NICE have tightened their guidelines regarding its use and application. However, not all chronic pelvic pain patients have had mesh, so how do we identify, assess and manage this diverse group of complex patients?

Diagnosis
An International Urogynecological Association/ International Continence Society joint report on the terminology for the conservative and non-pharmacological management of female pelvic floor dysfunction2 offers the following definitions of pelvic pain:

- Chronic pelvic pain syndrome (CPPS) – persistent pain perceived in structures related to the pelvis, in the absence of proven infection or other obvious local pathology that may account for the pain.
- Chronic PFM pain syndrome – the occurrence of persistent or recurrent, episodic, pain in the PFM, in the absence of a proven or well-defined local pathological condition.

They state that these conditions are often associated with negative cognitive, behavioural, sexual or emotional consequences, and symptoms suggestive of lower urinary tract, sexual, bowel or gynaecological dysfunction.

As stated in a 2017 update of the EAU guidelines on chronic pelvic pain “much debate over the classification of CPP has occurred, is ongoing and will continue in the future”.3 The current status quo defines 8 axes across which patients may be classified including:

1. Region – specified as specific disease associated pelvic pain or pelvic pain syndrome
2. System – e.g. urological, gynaecological or musculoskeletal
3. End organ as pain syndrome is identified – e.g. bladder, vulva or pelvic floor muscles (PFMs)
4. Referral characteristics – e.g. supra-pubic, perineal or buttocks
5. Temporal characteristics – including onset, ongoing, time and trigger
6. Character – including aching, burning, stabbing and electric
7. Associated symptoms – e.g. nocturia, constipation or sexual dysfunction
8. Psychological symptoms – including anxiety, depression and PTSD4

They go further and list 21 defined syndromes; spanning urological, gynaecological, gastrointestinal and musculoskeletal pelvic pain. Examples include prostate pain syndrome, clitoral pain syndrome, irritable bowel syndrome, coccyx pain syndrome, and PFM pain syndrome. They define pain syndromes as “symptomatic diagnoses, which are derived from a history of pain perceived in the region of the pelvis, and absence of other pathology, for a minimum of three out of the past six months”.

Diagnosis is made through thorough history and physical examination, often by a range of disciplines including the general practitioner, pelvic physiotherapist and psychologist. Further assessment occurs at the specialist level; be it the urologist for anterior pelvic pain, the gynaecologist for female reproductive issues or the gastroenterologist and colorectal surgeon for posterior bowel-related problems. Musculoskeletal pain is usually referred to the orthopaedic surgeons and neurologists. Imaging is considered essential for many.

Due to the variety of presentations, making a diagnosis is challenging, and should be specific to the presentation. If patients are assessed timeously by relevant and appropriate clinicians, what would have been a protracted battle with chronic pelvic pain may be easily resolved through education, awareness and behaviour modification.

Symptoms
The classic chronic pelvic pain patient possibly (probably) has anxiety (due to dysregulation in the autonomic nervous system). He/she may have had multiple visits to the doctor, with ill-defined or relatively insignificant symptoms; erratic...
constipation, some urinary frequency-urgency, a change in sexual function (pain with penetration, or post ejaculation), and possibly other autonomic nervous system dysregulations e.g. gastro-oesophageal reflux disorder (GORD), blood pressure or respiratory issues. The onset of pain differs; and the focus may shift – sometimes there, sometimes not, sometimes better, other times worse. It may morph between areas, starting around the base of the bladder and spreading across the perineum, or into the buttock or groin. This is due to the multiple drivers of pelvic pain, each exerting different degrees of influence at various times e.g. better over the weekend, worse when sitting for periods of time or after driving. It also makes it very difficult to assess unless multiple clinicians are involved, and are able to exclude pathology in the various systems e.g. urogenital, reproductive, colorectal, musculoskeletal and psycho-emotive. Gender differences also play a significant role.

Whilst definitions exist, they do not describe patient presentation. That is perhaps better done through the autonomic nervous system. Governing the subtle interplay between the stressed human doing (racing off to a meeting, worried about finances, in an abusive household), and the relaxed human being (pee, poo, pleasure) the autonomic nervous system (ANS) has its playground in the pelvis. Although ANS dysregulation has extra-pelvic causes and effects e.g. hyper-hidrosis or GORD, many imbalances are evident though changes in pelvic function i.e. bladder, bowel and sexual dysfunction. The role of the viscera-somatic and somato-visceral reflexes in propagating and maintaining chronic pelvic pain should be considered, as should the impact of viscera-visceral convergence, where one pathological organ can create pathology in another organ via propagation of a neural impulse via the dorsal horn.5,6

Take our classic chronic pelvic pain patient who may have begun with erratic constipation, but the constant pushing resulted in deep posterior PFM tightness (and a disruption in their normal ability to inhibit the bladder), and he/she now has urinary frequency: urgency. This has induced anxiety and a sympathetic response in the ANS. The stress and anxiety further up-regulates the PFMs, increasing their inhibitory effect, resulting in less colonic activity and more bladder over-activity. Changes may occur in pudendal nerve activity; the only peripheral nerve carrying both somatic and ANS fibres. This decreases time spent in the parasympathetics (pee, poo, pleasure), resulting in aggravated constipation, PFM tightness (causing e.g. buttock or groin pain), pudendal nerve dysregulation etc. and the cycle continues, gradually spirally out of control. So whilst individuals differ markedly both in initial presentation and ‘disease manifestation’, patterns of presentation emerge.

**Figure 1. Schematic of male PFMs (left) and female PFMs (right)**

**Figure 2. Divisions and functions of the autonomic nervous system**
Management and Treatment

According to the EAU guidelines⁴ all those involved in the management of CPP should have knowledge of peripheral and central pain mechanisms. The early assessment of patients with CPP should involve both investigations aimed at specific disease-associated pelvic pain and assessment of functional, emotional, behavioural, sexual and other quality of life issues, such as effect on work and socialisation. CPPS patients should be managed in a multi-speciality and multi-disciplinary environment with consideration of all their symptoms. They also advise specific assessment protocols that differ between pelvic pain groups e.g. patients with prostate pain syndrome should use a validated symptom and quality of life scoring instrument, such as the NIH-CPSI (Chronic Prostatitis Symptom Index), for initial assessment and follow-up; patients with bladder pain should undergo cystoscopy; all women with gynaecological aspects of pelvic pain should undergo full gynaecological assessment; and in patients with CPPS it is advised to look for myofascial trigger points.

Back to our chronic patient, with pelvic pain, multiple pelvic co-morbidity, and anxiety; simple treatment aimed at teaching PFM relaxation and deep breathing, coupled with advice regarding positioning on the toilet (defaecatory technique) and the normal effect of bladder inhibition (bladder training) may be sufficient to break the cycle. Other individuals may require additional advice regarding diet (fluid and fibre) and exercise, both general (cardio, resistance, weight, core activation) and specific (PFM training). Yet others will benefit from relaxation and stretching, or a mindfulness based stress release programme.

Other conservative modalities include biofeedback which involves assessment and down-training of overactive muscles and involuntary responses with the use of technology, commonly electromyography (EMG) and/or real-time ultrasound.

Manual techniques including desensitisation, abdominal massage (visceral manipulations), myofascial release, skin rolling, scar release and trigger point treatment can all normalise up-regulated systems, be it in a young male cyclist with pudendal neuralgia, an endometriosis patient, pregnancy-related pelvic girdle pain, or abdomino-pelvic pain following general surgery e.g. post appendectomy or cholecystectomy.

Physical agents including thermal modalities (hot or cold, depending upon patient presentation and pathology) and neuromuscular stimulation (the little brother of sacral neuromodulation SNM) can be applied to relevant areas to facilitate particular responses. The neuromuscular stimulation is seldom applied internally, as would be done for patients with weak underactive PFM’s and incontinence and pelvic organ prolapse, but rather externally via adhesive electrodes over the sacral nerve roots. This can offer considerable relief, or may be a precursor to an implanted SNM device. Botox is increasingly finding traction in the management of a variety of presentations of CPP, although there are calls for well designed randomised clinical trials for both botox and SNM.

Pharmacological management of pelvic pain is complex, with different presentations and patient groups responding to different classes of drugs. The general rule would be to correct imbalances, without long-term reliance upon any drug to mask symptoms. Laxatives to aid bowel function should only be considered once colonic transit has been addressed via diet (fibre and fluid) and correct defaecation has been taught. Anti-cholinergics for the management of urinary urgency and incontinence should be coupled with bladder training. Anti-depressants and anxiolytics should accompany cognitive behavioural therapy or mindfulness based stress release. Analgesics should not be a first line treatment but an adjunct to therapy. The obvious exceptions are oestrogens and anti-psychotics!

Please email womenshealth@saphysio.co.za for a list of appropriately trained physiotherapists in your area – both Women’s Health and Men’s Health. Note: Not all pelvic therapists assess and treat chronic pelvic pain. There is no guarantee of easy access to a trained pelvic therapist, but clinicians are encouraged to identify referral sources, and make use of the multidisciplinary team (MDT) at their disposal.

Conclusion

The varied presentations and forms of chronic pelvic pain render it a challenge for the generalist. With these patients – less is more; identify vulnerable individuals with multi-systemic dysregulation (pelvic and ANS) through a thorough clinical history, exclude organic pathology, and refer on through the pelvic multi-disciplinary team; including pelvic physiotherapist, psychologist and pelvic specialists.

Take-home message

• Pelvic pain rarely presents in isolation:
  – look for changes in bladder, bowel and sexual function
  – look for ANS dysregulation, seen in a variety of systems
• If there is pelvic co-morbidity, there is likely to be PFM or pudendal nerve involvement
• Anxiety, depression and PTSD are all co-morbid with CPP
• Utilise conservative management, before progressing to invasive interventions or resorting to chronic medication
• Chronic pelvic pain is best managed in a MDT context

References available on request.
Congress Reportback: PainSA 2018

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The annual PainSA congress was held from the 18th-20th of May 2018 in Johannesburg at the Emperor’s Palace convention centre. PainSA is the South African chapter of the International Association for the Study of Pain (IASP). The goal of the organisation is to improve all aspects of pain management by encouraging interdisciplinary research and clinical practice. This is one of the few congresses in South Africa where basic scientists and members of all the health professions come together with a common goal – to improve the standard of care provided to patients with disabling pain in order to improve functioning and increase participation in daily life.

The congress had a very good attendance - with 168 health care workers representing multiple disciplines. The Friday started off with a Pain Physiology Workshop refresher course - conceptual overviews were discussed together with a framework on how to think mechanistically about pain – all while congress attendees worked together in groups to wrangle with difficult concepts. This session ran parallel to an ultrasound-guided workshop – which was very well attended by anaesthetists and practitioners who practise interventions.

The Friday afternoon had a workshop focusing on communicating with chronic pain patients. Many challenges stem from difficulties in the therapeutic alliance between clinicians and chronic pain patients. The workshop looked at some of the most common difficulties in engaging and forming therapeutic alliances with people with chronic pain. One of the learning points was that establishing a sense of trust and support has been found to be effective in empowering and motivating patients to develop realistic action plans – in order to return them to lives that have value and meaning.

Our international invited speaker was Professor Anthony Dickenson. Prof Dickenson is a Professor of Neuropharmacology at University College, London. Topics during his plenary lectures included “What makes up the pain experience?” “Pain in musculoskeletal conditions” and “The future of pain control”.

Dr Tory Madden, a postdoctoral researcher at the University of Cape Town, who is investigating the possibility that psychosocial stress and resilience modulate the persistence of pain after tissue healing, gave an excellent talk on “Mechanisms of pain – evidence for emotional and contextual influences”.

Sessions with themes around “Current conversations in pain” and “Pharmacological and invasive management of pain” were jam-packed with some presentations including acute postoperative pain and its chronication, ketamine - the evidence for use in acute and chronic pain and what the research in South Africa tells us about our population (or doesn’t!).

A paediatric pain session included lectures on procedural sedation and analgesia in paediatrics, general principles of paediatric palliation and the impact of alternate focus and play on pain and anxiety. This was followed by the launch of the PainSA’s paediatric pain special interest group first AGM.
Anne Ioannides whose presentation on “Psychological factors influencing pain intensity-related factors and how they affect cold-pain tolerance in healthy students” won the free communications session.

The Saturday afternoon closed with clinical workshop case studies with the topics “I am suffering because of somebody else” and “When the mood is worse than the disc bulge”.

The final lecture for the day explored the Ethics of Pain Management in Palliative Care by Dr Mpho Ratshikana-Moloko.

Saturday night a networking dinner with an 80’s disco theme saw a flurry of luminous pink leg warmers and headbands with an impressive act put on by a human beatbox!

This fun evening was followed by an early start - a silent disco as part of our wellness initiative.

Sunday’s thematic sessions included specific topics for general practice: “The problems with imaging in lower back pain” – an area of chronic pain which is plagued with controversies together with “Opioid therapy for non-cancer pain” and “Addiction and pain” – an area those working in the field all struggle with. These talks were excellent presentations and sparked lots of debate.

A debate on “The first goal of treatment should be pain relief vs. return to function” was rather beautifully illustrated by Dr Rowan Duys from UCT and Dr Murray McDonald in a role-playing enactment of a patient-doctor interaction!

Finally, a lecture by Dr Kerry Louw, a psychiatrist from Stellenbosch University, on “Looking after yourself as a health care practitioner” highlighted the importance of self-care as health care workers.

Dr Antonia Wadley from the University of the Witwatersrand gave a very topical lecture on an understudied yet very interesting subject “Pain, resilience and HIV”.

Prof Christina Lundgren ended the congress with a lecture on the ethics of using placebo in pain management.

The congress was a great success with many practitioners sharing ideas and networking. We look forward to the next congress which will be held on 3-5 May 2019 at Champagne Sports Resort, Drakensberg.

For more information on that congress visit www.painsa.org.za.

For information on other congresses/pain events, please see page 11.
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<td>3 months to 1 year</td>
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<td>1 X 250 mg suppository</td>
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