

Penodynia and Depression

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Sir,

Penodynia is a chronic penile pain of duration more than three months clinically presents as burning/vague pain located in the penis in the absence of any objective signs, or positive and relevant investigations to explain such a symptom [1]. Independent penile pain is a rare complaint [2]. Penodynia occurs when the symptoms develop in the absence of observable local disease, infection or a result of referred pain. The exact etiology of this pain is unexplored, because most often the clinical examination and work up unravel a definitive cause. These patients might have psycho social impairment, rarely this symptom (pain) will be the only manifestation of a mental illness [3]. In chronic pain treatment of the organic cause alone may not ease the symptom, especially when psychological and behavioral aspects are involved. This article represents our view on penodynia, depression and the role of amitriptylline.

A 35 years old married male presented with severe burning sensation of shaft of penis present throughout the day since 8 months. History of sexual exposure was present before the onset of symptoms. Clinical examination of scrotal skin, testis, cord, epididymis, penis and perianal area did not reveal any abnormality. Per rectal examination was done to rule out prostate pathology. Lab investigations like random blood sugar, urine routine and microscopy, X ray lumbosacral spine and ultrasound abdomen, pelvis and scrotum was done to rule out an organic cause. Serological tests to rule out STI were done. The patient had guilt of his sexual exposure. Clinical interview by psychiatrist revealed disrupted sexual activity and psychosocial impairment. A diagnosis of depression was made. Patient was started on amitriptylline 10mg for 1 week then increased to 25mg. He showed gradual improvement in symptoms during the follow up.

This is the third case report of penodynia and first from the Asian country. The first case report on penodynia was published in 2004 by Markos [4] and two french articles by Dauendorffer JN in 2012 and 2014 [5,6]. Unfortunately, penodynia is a condition that has been open to elucidation due to sparse literature on the subject. Here we discuss the clinical presentation, differential diagnosis and management of chronic pain in penis. The etiology of penodynia is not understood, and treatment aspects remain controversial.

Penodynia is a diagnosis of exclusion. Clinicians should first think of the apparent causes of penile pain, such as sexually transmitted infection or trauma. However a wide range of differential diagnoses in patient with penile pain should be considered. The pathologic process within the penis that can result in pain include urethritis, urethral foreign bodies, priapism, Peyronie's disease, balanoposthitis and insect bites (for example ant/spider bites). The other causes of penile pain are due to adjacent structures which include prostatitis and scrotal disorders like testicular torsion, epididymitis, orchitis and direct inguinal hernia. Paraphimosis and balanitis should be considered as the differential diagnosis of penile pain in uncircumcised men [2]. Patients with pudendal neuralgia and pain disorder associated with psychological factors may also experience penile pain which are relatively underdiagnosed [2,7]. So it involves a meticulous elicitation of clinical history and physical examination of the abdomen, buttocks, inner thighs, perineum and male genitalia. If needed repeated virologic, microbiologic, serologic investigations, and imaging like ultrasound, X ray, and MRI has to be done. Since any chronic symptoms can have a concealed psychological problem, other psychiatric illness has to be considered after excluding the possibility of organic source.

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In our case the patient developed depressive symptoms following the guilt of sexual exposure. Male genital pain may present after an episode of inadvertent sexual activity, frequently regretted and inducing guilt, especially in those with a rigid personality. Patients who present with apprehension about sexually transmitted infections frequently go through other ailments also. This may be rationalized into conviction of an infection that is difficult to appease [8]. Hence it is important to rule out STI before appropriate psychological evaluation by a specialist.

There is evidence of a high co-morbidity of chronic pain and depression. Studies found that as many as 75–80% of patients with depression report painful somatic symptoms. Depression and pain share biological pathways and neurotransmitters, which has implications for the treatment of both concurrently. A common theory holds that depression and painful symptoms follow the same descending pathways of the central nervous system. In depression serotonin and nor epinephrine are depleted which effect modulatory system (Limbic structures, Periaqueductal Grey area and on and off cells in Rostral Vento-Medial Medulla) and then the subject appears to focus, attend to, and rate the pain stimuli as more severe [9].

Antidepressants do not prevent peripheral sensitization, but amitriptyline may reduce peripheral prostaglandin E2-like activity or tumour necrosis factor production. Blockade of peripheral nor-adrenergic receptors by tricyclic antidepressants (TCAs) may contribute to a peripheral analgesic action because peripheral release of noradrenaline (norepinephrine) and serotonin is known to be hyperalgesic. The high association of chronic pain and depression, which should lead clinicians to investigate both dimensions when a patient presents with either pain or depression, as it has shown that the presence of pain tends to negatively

affect the recognition and treatment of depression and vice-versa [10].

Patients presenting with penodynia should be evaluated and managed using an interdisciplinary approach. Currently available treatment options are limited. Better understanding of the primary etiopathology of penodynia is required to develop specific treatment strategies.

Consent

The examination of the patient was conducted according to the Declaration of Helsinki principles.

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