Introduction

Pelvic pain in any form acute or chronic, localized or referred is common in all age groups **(Wesselmonnu, 1999).** Chronic pelvic pain (CPP) is distinguished from acute pelvic pain by the nature of the progression of the complaints. Acute pelvic pain develops over the course of days with a rapid onset and usually is caused by infection, torsion, or rupture of visceral structure. The events causing acute pelvic pain can also result in chronic pelvic pain. Pelvic pain is often accompanied by voiding problems and/or sexual dysfunction **(Hoffman Jw. 1983).**

Chronic pelvic pain is a common and debilitating problem that can significantly impair the quality of life of the patient and may be felt without an obvious cause. It has been postulated that chronic pelvic pain refers to pelvic pain in the same pelvic location for the least 6 months (**ACOG technical bulletin, 1996**). Even if pathological condition is visualized it may not correlate with the pain (**Stout AL, 1991**). Most of the focal pain syndromes of pelvic floor seem to exist in men and women at all ages of their adult life (**Berkley, 1997b; Wesslemonn, 1997b**). A woman has about 50% risk of having chronic pelvic pain in her life time. In a patient with previous diagnosis of pelvic inflammatory disease this risk increased to approximately 20% (**Ryder, 1996**). In United States 10% of out patient gynecological consultation are for chronic pelvic pain (**Reiter, 1990**) and 40% of laparoscopies are done for chronic pelvic pain (**Howord, 1993**).

The pelvis is very complex neurophysiologic area, with intermingled contribution form the somatic, sympathetic and parasympathetic nervous systems. Thus pelvic pain may have mixed nociceptive and/or sympathetic characteristics of somatic, visceral and/or neurogenic origin **Ursula Wesselman,** (**1999**) in a refresher course reported after **Head (1993**) that: In the clinical context there are two key issues that are important to keep in mind when evaluating and treating a patient with chronic pelvic pain.

1- Pelvic pain belongs to the category of visceral pain and presents with two components. True visceral pain which is the pain in the pelvic cavity and referred visceral pain to somatic structures such as muscles and skin
2- Pelvic pain is diffuse sensation than can not be clearly localized. Pain originating in one viscus can not be easily differentiated from pain originating in another viscus, which often makes the differential diagnosis very difficult (**Moor et al, 1998**).

This aspect will allow the physician to look at the global picture of pelvic dysfunction, rather than choosing one aspect of the chronic syndrome out of context.

Gynecological cancer account for approximately one quarter of all malignant disease in women . Carcinoma of the cervix (including in situ carcinoma) is the comments cancer in women after carcinoma of the breast. Tumors of the female genital tract are important not only because of their high incidence but also because many can be diagnosed while still relatively localized. Cancer of the ureters and/or renal pelvis is rare and constitutes less than 1% of all genitouring cancers. The majority (95%) of these neoplasmas are transitional all carcinoma **(Bachar GN, 2004)**

Chronic pelvic pain may occur in 50% or more of patients with a history of physical and/or sexual abuse **(Toomey TC, 1993)**. If such patients exhibit psychological distress and/or somatization; interventional techniques should be contraindicated or at least delayed (**Wolker EA, 1992**).

Intractable pain remains one of the complications most feared by patients with cancer. Pain can be expected in about two thirds of all patients with cancer, and in the absence of proper control its severity will escalate as disease advances (**Guptill & Carr, 1999**).

For these reasons, in 1980 the World Health Organization (WHO) did effort to prevent cancers with known causes, to improve early detection and cure rates of cancer, and to relieve cancer pain In **1996,** the **WHO** published an updated version of Cancer Pain

Relief; which again was based on the use of a "three-step analgesic ladder" (**Ventafridda & Sternward, 1996**).

Another, more concise document issued in **1996** by a task force of the **American Society of Anesthesiologists**. Both call for: a pain control plan individualized to the patient, the family and the practitioner; an interdisciplinary collaborative approach to the patient with cancer; use of both pharmacological and non-pharmacological approaches to prevent and/or control pain; continuous assessment and re-assessment of the patients' pain; and explicit institutional policies for monitoring the quality of pain management, that provide clear lines of responsibility (**Ferrante et al, 1996**).

Between 70% and 90% of all cancer pain can be controlled with oral medication (**Zech et al, 1995**) but for those patients with unrelieved pain invasive procedures have an important role. Recent surveys show that (1) cancer pain is both under diagnosed and under treated and (2) physicians unfamiliar with current pain treatment modalities are more likely to support assisted suicide for their patients (**Cleeland, 1994**). Appropriate use of invasive measures in the 10-30% of patients - most often those with advanced disease - who fail oral therapy, can relieve nearly all cancer pain. It is important to emphasize that regional techniques such as nerve blocks for cancer pain management are intended to be analgesic "adjuvant" and not definitive treatment. These procedures should allow patients to lower drug dosages and thereby reduce side effects, or to experience better pain relief from current dosages in order to improve their quality of life. Neither primary physician nor pain specialist should promise permanent relief, since the patient's disease may progress and spread. Most patients referred for cancer-related symptom management have at least two anatomically distinct pain sites, and more than 40% have four or more sites. It is unreasonable to expect one regional block to eliminate pain from its multiple sites. On the contrary, medical care of the suffering pain patient requires a multimodal, multispeciality approach combining psychotherapy, social support, and pain management to provide the best possible quality of life or quality of dying (**Guptill & Carr, 1999**).

Pharmaceutical efficacy in controlling CPP may be achieved at the expense of dysfunction relating to libido, erection, ejaculation; and orgasm. Carbamazepine, for example can block testosterone production and result in testicular atrophy as well as gynecomastia and galactorrhea (**NeZhat C, 1992)**.

Application of invasive measures to the 10-30% of patients who fail oral therapy can relieve nearly all cancer pain. Invasive techniques for managing cancer pain often employ neurolytic substances like ethanol or phenol. A thorough knowledge of relevant anatomy and the mechanism of action by which the agent destroys neural tissue is essential to minimize irreversible complications. Several points must be addressed before one proceeds with a neurolytic block. Only physicians with extensive experience and skill should perform these blocks. As stated above, nerve blocks should be regarded as part of a multimodal approach to pain and not as a stand-alone pain "cure." Patients should be thoroughly informed about likely sensory deficits and possible complications. In most cases, neurolytic blocks should first be simulated with local anesthetic to allow the patient to experience the sensory changes that may occur (**Cousins & Bridenbaugh, 1998**).

The patient should be followed for several days after the diagnostic block. Finally, close monitoring and planned opioid reduction should follow a successful neurolytic block to prepare for somnolence and respiratory depression when the respiratory stimulation of pain is removed. Pain associated with cancer may be somatic, visceral, or neuropathic in origin. Approximately 50% of cancer patients experience a combination of pain types at the time of diagnosis. Stretching, compressing, invading, or distending visceral structures can result in a poorly localized noxious pain. Patients experiencing visceral pain often describe the pain as vague, deep, squeezing, crampy, or colicky. Other signs and symptoms include referred pain (e.g., shoulder pain that appears when the diaphragm is invaded with tumor) and nausea/vomiting due to vagal irritation. Visceral pain associated with cancer may be relieved with oral pharmacologic therapy that includes combinations of non-steroidal anti-

inflammatory drugs (NSAIDs), opioids, and co adjuvant therapy. In addition to pharmacologic therapy, neurolytic blocks of the sympathetic axis are also effective in controlling visceral cancer pain and should be considered as important adjuncts to pharmacologic therapy for the relief of severe pain experienced by cancer patients. These blocks rarely eliminate cancer pain because patients frequently experience coexisting somatic and neuropathic pain as well. Therefore, oral pharmacologic therapy must be continued, albeit at lower doses **(De Leon Casasola, 2000).**

Two approaches to the treatment of chronic pelvic pain are advocated:

1- Removing of the pelvic organs thought to be the pain generators.

And

2- Treating visible disease without removing pelvic organs.

This essay will cover the following parts:

- Applied anatomy of the pelvis.
- Pathogenesis of chronic pelvic pain.
- Diagnosis of pelvic pain.
- Modalities of treatment of pelvic pain:
    - Pharmacotherapy.
    - Interventional blocks.