"Pain is the most common symptom for which patients seek care." Markenson

Intractable Pain

This term originated in 1990, when Texas and California enacted "Intractable Pain" Laws, in which intractable pain was defined as:

"A pain state in which the cause of the pain cannot be removed or otherwise treated and which in the generally accepted course of medical practice no relief or cure of the cause is possible or none has been found after reasonable efforts."

These laws went on to be adopted by a number of other States, and aimed to permit physicians to prescribe controlled drugs such as narcotics.

The American Medical Association defines chronic pain thus:

"Chronic Pain is a self-sustaining, self-reinforcing, and self-regenerating process. It is not a symptom of an underlying acute somatic injury but rather, a destructive illness in its own right.

It is an illness of the whole person and not a disease caused by the pathological state of an organ system. Chronic pain is persistent, long-lived, and progressive. Pain perception is markedly enhanced..."

Forest Tennant, director of Veract, an organisation dedicated to research into and treatment of intractable pain ([1]), uses the following definition:

"Pain that is excruciating, constant, incurable and of such severity that it dominates virtually every conscious moment, produces mental and physical debilitation and may produce a desire to commit suicide for the sole purpose of stopping the pain."

Dr. Tennant suggests an incidence of 2-5% of intractable pain in the general adult population. Amongst people with adhesive arachnoiditis, it is virtually 100%.

He furthermore asserts that IP, if untreated, is "an internal, systemic disease" that affects various parts of the body.

Poorly controlled (intractable) pain induces a state of constant physiological arousal (stress) resulting in elevated levels of the stress hormones adrenaline, insulin and cortisol in the blood stream.

These are responsible for a wide variety of symptoms:

1. Adrenaline: high pulse rate, palpitations, raised blood pressure, anxiety, panic attacks, insomnia and also, at times when the levels become depleted, (often mid-afternoon), fatigue, headache, depression and low attention span. The autonomic imbalance towards the sympathetic nervous system overactivity is a common feature of chronic pain syndromes of all types.

2. Insulin: this hormone is involved with the regulation of blood sugar levels. Excessive secretion causes low blood sugar and weakness. It may be that prolonged excess levels eventually deplete the body of the capacity to manufacture insulin or are in some way involved in the development of antibodies to insulin (causing insulin resistance): and this development of diabetes mellitus.

3. Cortisol: this stress hormone is implicated in the development of osteoporosis, immune suppression, weight gain and fluctuating energy levels. It may also impact on electrolyte (sodium and potassium) levels in the blood.

Combined excess blood levels of these hormones can result in muscle pain/weakness and fatigue.

The predominant and most distressing symptom of arachnoiditis is chronic, persistent pain, which is primarily neurogenic (nerve generated) and thus difficult to treat. All (100%) of patients in the Global survey had pain.

Compare this with the results of an NHS survey of cancer patients, in which 9% experienced pain or discomfort all of the time, 34% some of the time and 20% experienced severe pain.

This pain is transmitted from the dorsal root ganglia (DRG) in the spinal cord. In contrast to normal DRGs, inflamed DRGs produce sustained pain impulses from any mild stimulus such as body movements or even breathing.

It is thought that pain receptors (nociceptors) become permanently ?switched on' when there is persistent pain and/or damage to the nervous system.

Pain tends to increase with activity. There may be a delay after onset of activity, with a slow summation (build up), to a point where the pain suddenly becomes unbearable and then persists once the activity has ceased.

Quite often, there is no immediate effect of activity, and it is only on the following day that the symptoms are exacerbated, and they may well remain more severe than normal for days or even weeks.

This can make it difficult for patients and physicians or physiotherapists to assess what is the tolerable level of exercise.

Pain may be due to other factors besides nerve damage. These include musculoskeletal sources secondary to disuse, overuse or compensatory use of muscle groups, due to alteration of spine dynamics.

There may also be muscle tension due to being in pain, or increased muscle tone (spasticity) caused by nerve damage. This can be accompanied by pains in the joints.

Secondary effects of pain:

- Sleep deprivation
- Muscle wasting
- Joint stiffness
- Reduced activity/immobility
- No longer working
- Social isolation
- Financial struggle
- Low self-esteem/low mood

Types of pain

Aldrete looked at pain-related symptoms and found the following types:

Gnawing (lumbosacral): 46%
Constricting (legs or ankles): 26%
Stabbing (Lumbosacral): 24%
Burning: one foot: 55%; both feet 37%; lower back: 6.7%

Aldrete described the burning sensation in the feet and legs (88% of patients overall) as being a "pathognomonic feature" of arachnoiditis.

The New Zealand survey found the following types:

Type
Mild%
Moderate%
Severe%
Total%

Sharp
6
12
32
50

Dull
14
25
25
64

Burning
9
22
30
61

Stabbing
4
15
25
44

Electric shock
11
12
16
39

Constant
22
23
39
84

Intermittent
17
16
25
58

The pain is generally described as burning, but often people are unable to describe it.

This type of pain is termed dysaesthesia (by definition indescribable, bizarre pain). It is not felt by normal people and is specifically a feature of incomplete nerve damage.

It may sometimes be called deafferentation pain, or causalgia. Many patients suffer from burning feet, in particular.

The majority of patients also have transient shooting pains that may vary in intensity from an insect bite to an electric shock.

Persistent pain can affect the way in which the central nervous system functions, by inducing central sensitisation.

This effectively means that the nervous system is in a constant state of ?red alert' and is hypersensitive to all incoming messages (stimuli).

Breakthrough pain is a transient flare of pain occurring against a background of otherwise well controlled pain. (See below)

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[1] http://www.veractinc@msn.com