Are You Plagued with Toxic Joint Syndrome?

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Do you, your loved ones, your friends, or someone you know have a joint problem that interferes with what you or they want to do? Is there concern about taking medications that may become addictive, habit forming, or that may harm you? Do you know that there are new and up-to-the-minute concepts regarding the cause and course of joint problems? Are you concerned with the costs of dealing with a joint issue? Have you been frustrated in searching for an acceptable way to relieve the hindrance of a problematic joint? If so, you are invited to read on and discover the latest advance in understanding and caring for joint problems.

Today, over 100 million Americans live with a condition called Toxic Joint Syndrome (TJS). By definition, TJS pertains to a constellation of signs and symptoms associated with an unhealthy joint resulting from injury and/or disease. Single or multiple joints may be involved and some or all of the signs and symptoms of a toxic joint may be present to varying degrees.

Signs and symptoms of a toxic joint syndrome may include pain, swelling, redness, restricted movement, clicking or crunching, a catching sensation, reduced capacity for repetitive or enduring action(s), limitation of activities, failure of the joint to perform, radiographic changes, abnormal joint fluid and arthroscopic findings. Considerable demand from work or pleasurable activities is often placed on many of our joints. For discussion purposes, let's consider the most frequently involved joint in TJS – the knee.

Over eighty million Americans are afflicted with knee pain. Among the most common causes are osteoarthritis, ligament strains and sprains, Osgood-Schlatter Disorder, overweight and obesity, patello-femoral syndrome and plica syndrome, and overuse syndromes.

Regarding overuse syndromes, consider a study conducted by orthopedic surgeon Dr. L. Johnson who measured the force directed to the knees in golfers. The amount of stress to the knee was expressed as a multiple of body weight. He reported that swinging a golf club at 65 mph produces a force on the forward knee equal to 4.5 times the body weight. So in an individual weighing 150#, each swing off the tee directs 675# of force to the forward knee. A force equal to three times the body weight is directed to the back knee. Imagine how much stress the knees must endure during a round of golf.

Others have evaluated stress to the knee during activities such as jogging, biking, tennis, rowing and even relatively less demanding activities. Multiple reports describe significant stress forces on this vulnerable joint. When one considers the incredible abuse the knee joint endures, it is remarkable that anyone can walk without pain or a limp.

Osteoarthritis (OA) is responsible for the largest percent of TJS. It has substantially increased over the last 20 years and this increase appears not to be directly related to age and

obesity. On the contrary, recent evidence from a landmark study by Dr. Robinson at Stanford Medical School suggests that osteoarthritis, which has always been considered a degenerative condition like parts and tires wearing out on a car, may indeed be the result of inflammation. This paradigm shift in thinking about osteoarthritis will have immense implications for patients and how health care professionals approach treatment of this costly and debilitating condition.

The reality of joint pain treatment currently resides in one of four categories. Physical Therapy provides a measure of relief and rehabilitation for many. However, in addition to significant costs, there are the limitations imposed by pain and restricted mobility in limiting one's ability to successfully negotiate a physical therapy or fitness program.

Lack of exercise and fitness is recognized as one of the greatest risk factors for cardiovascular mortality. Healthy adults who are the least fit have a mortality risk that is 4.5 times that of the most fit. The inference is that even well-motivated individuals suffering from a Toxic Joint Syndrome may not be able to maintain fitness and become one of 250,000 annual "non-fit" cardiac or non-cardiac fatalities.

Joint injections with anesthetics, steroids, joint lubricants and platelet rich infusions represent another treatment route. Often this approach has limited success and may have accompanying undesirable consequences. These may include infection, discomfort, significant adverse medication events, bleeding, significant cost, and inconvenience.

OTC (over the counter) and prescription medications comprise a large treatment category approach to joint pain. Nutraceutical medications may be only partially effective or ineffective. Salicylates offer many an inexpensive solution on one hand. However, something which is perceived as so innocuous by most of the population has effects on almost every organ system. In addition there may be undesirable medication interactions as well as adverse effects on many organs.

The NSAIDS (non-steroidal anti-inflammatory drugs) category is another story. Their initial introduction was met with great enthusiasm; however, much of the lay and medical communities are aware of the many and serious adverse effects that range from significant complications to death. Although the 16,500 U.S. annual death rates from NSAIDS has recently been reduced by 50% or more, there continues to be a significant number of deaths attributed to NSAIDS.

There are numerous citations regarding the increased cardiovascular morbidity and mortality from NSAID use. Estimates suggest >20% of seniors take NSAIDS at least weekly. Recently a report confirms the morbidity associated with NSAID use, and cites the alarming statistic that chronic NSAID use doubles CV deaths in elderly. Moreover, it is now recognized that even short term use of these drugs (1 week) demonstrates increased mortality.

Thirty percent or more of NSAID users experience gastrointestinal side effects and adverse events which range from pain to lethal perforation and bleeding. And additional adverse effects are being discovered, such as an association with erectile dysfunction.

Many consider the number, severity, and cost of NSAID adverse events an unacceptable therapeutic trade-off. The significant economic burden includes loss of productivity, the financial

outlay spent on the medication, and the enormous cost of treating adverse events. In 1988 that cost was $3 billion and has continued to escalate.

Opioids pose a GI adverse event risk equal to NSAIDs, in addition to a greater risk of fractures and increased risk of safety events that require hospitalizations. Chronic opioid use often produces constipation and also diminishes testosterone in males. Zywiel (2011) reports that patients who are dependent on opioids for their pain management prior to knee replacement surgery have a poorer post-operative outcome in multiple parameters.

The CDC reports (2011) that in 2008 there were 36,450 deaths attributed to drug overdoses with a significant segment due to opioid related pain relievers (OPR). Americans constitute 4.6% of the world's population, but consume approximately 80% of the world's opioid supply. Opioid related deaths are increasing by 18.1% per year. By 2012, the annual drug related death toll will likely approach 45,000.

With prescription analgesics accounting for over 10,000 deaths annually, deaths due to heroin and other illicit drugs, and the over 7,000 deaths attributed to NSAIDS, the U.S. annual death rate from these drugs approaches 50,000! And even more alarming is that four drug companies are today creating ten times more powerful versions of Vicodin, the nation's second most abused medication.

Unfortunately for many individuals, taking that first pill for symptomatic relief of a toxic joint, can signal the beginning of a lifetime of medication usage and dependence. In some cases that could mean 15,000 or more pills.

Surgery is a forth option in the physician's toolbox and ranges from arthroscopic surgery to total joint replacement. The knee is one of the most commonly involved joints in Toxic Joint Syndrome. Consider a recent report revealing that the results from arthroscopic lavage or debridement of the knee joint were no better than placebo. With the average cost of this procedure ($4,500) and with over 1 million arthroscopic procedures performed annually in the U.S.,there could be uncertainty of where this modality will lie with the advent of health care reform.

Partial to total knee replacements are other surgical options; however, many orthopedic surgeons would opt to postpone replacement surgery as late in life as possible so the patient does not outlive the replacement. This means that a number of patients must either seek alternative measures to control pain or face multiple knee replacements. And also consider the fact that there are a group of patients with intractable knee pain that are not surgical candidates.

Toxic Joint Syndrome has become a significant burden to our society. Current therapeutic options for many have limitations. Medicine Up To The Minute invites you to visit the next discussion of Toxic Joint Syndrome to preview a new therapeutic option.