One of the least understood and misperceived processes in health and disease is the process of inflammation. Most times we see inflammation as a destructive chain of events, that damages our tissues and organs, with an effect on our well being which accelerates aging. What we often do not realize is that there would be no tissue regeneration without inflammation, which acts as an initiating force mobilizing the defense system to do its best in reconstruction and rebuilding of the physical damage to our body. Damage which; in the first place is not caused by, but rather signaled by inflammation. Thus inflammation in its original meaning is not a “culprit” but an element, e.g. bacteria, mechanical injury (cut wound), thermal injury (sunburn) etc. Imagine a simple cut wound, which exposes tissue normally protected by skin to the bacteria of the environment, left unnoticed and unattended by our defense (immune) system. In that event, there would be no inflammation. No one likes it, but it has an important function: to signal distress from living tissue. The disappearance of pain therefore can mean one of two things: that the cause of distress has been removed or that the tissue, in effect, given up. In the later case, when pain reappears during the course of a proper treatment, it may be inferred that the process of the disease has been at least partially reversed and that the regeneration process has begun.

Therefore inflammatory reactions can and should be seen in a positive light, until such a time that they outlast their useful purpose, and result in the injury to the body rather than signal that injury. Such a damaging inflammatory process occurs in degenerative disease of arthritis. The beginnings of arthritis can be seen as an inflammatory process, i.e. the immune system counteracts an “invader”, e.g. free radical damage to the tissue, in the effect to subdue the abnormal process and then to repair the damage. However if the cause of the inflammatory reaction is not removed by the intervention of the immune system, then more inflammatory signals of distress are sent to the immune system command centers. In response, the immune system sends more of the specialized cells like perpetuating mechanism, chronic inflammation ensues, which eventually confesses the command center of the immune system. This state of confusion is often referred to as the autoimmune disease, which not only inactivates the defense of our body, but actually makes our own defense turn against our body. Literally the immune system recognizes our body as an “invader” and attacks it as a “non-self” tissue.

INFLAMMATION: THE CAUSE vs. EFFECT

The important point made in the above explanation is that inflammation should be intelligently dealt with, instead of just being eradicated at all costs. A toothache is a painful manifestation of an inflammation, which should be taken care of by a visit to a dentist, but not by gulping pain-relieving and anti-inflammatory medications. In the case of a toothache most of us would make the logical choice of going to a dentist, to alleviate the “cause”, instead of dealing with pain, or the “effect” only. Unfortunately most times conditions which are manifest by pain and
inflammation do not offer a simple solution to a patient and a doctor as to the most effective ways of treatment. Inflammation of the joints or arthritis can exemplify one of the many elusive medical conditions. However, it should be kept in mind that in some cases, arthritis, if properly diagnosed, is clearly a manifestation of a treatable condition like Lyme disease. Lyme disease is caused by a bacteria, Borrelia Burgdorferi, which is acquired by a bite of an infected deer tick. The inflammatory reaction to the infection is manifested in the form of arthritis, which could be tragically mis-diagnosed as rheumatoid arthritis, and treated with an anti-inflammatory agent. The treatment of Lyme disease with a specific antibiotic will not only remove the symptoms of inflammation and arthritis but prevent irreversible consequences of an untreated bacterial infection.

Rheumatoid arthritis, on the other hand, is an example of an inflammatory condition without known cause which can be managed (but not cured) with an anti-inflammatory drugs regimen. However, a new understanding of this inflammatory condition is emerging which may further illustrate the importance of distinguishing a ‘cause’ from the “effect” of inflammation. In fact, this new understanding may provide a true therapeutic approach to the disease. In fact, this new understanding may provide a true therapeutic approach to the disease. The so called “leaky gut” syndrome is now postulated as a primary or contributing mechanism initiating the inflammatory reactions that eventually may present as rheumatoid arthritis. According to this new understanding, the gastrointestinal tract exposed to allergens in food (substances which causes inflammation), excess of certain anti-inflammatory drugs like aspirin, and poor nutrition (high carbohydrate and high fat diets) may absorb not only nutrients but also bacterial and toxic elements present in the gut. The presence of the toxins from the gut in the blood stream (leaking into the blood stream) will be met with inflammatory reaction and subsequent immune response from the organism. This defensive response may lead to a vicious circle described previously in the article-the autoimmune disease. The autoimmune disease could manifest clinically as rheumatoid arthritis. Importantly, it has been shown that patients with rheumatoid arthritis often suffer from the “leaky gut” syndrome.

The standard treatment of rheumatoid arthritis includes use of large doses of the anti-inflammatory drugs including aspirin. This practice, however, should be reexamined. Particularly in view of the finding that some anti-inflammatory treatments like aspirin may contribute to the “leaky gut” syndrome. The point is not to abandon use of aspirin but to use it more intelligently, so that the “wonder” drug is applied to manage excessive inflammation not to “treat” the inflammatory condition.

APPROACH TO INFLAMMATORY WITH MULTI-COMPONENT FORMULAE

As a rule, Tibetan medicine always copies the principles that operate in nature, where primary changes are gradual, like the changes in the season of the year. Short of accident or trauma, it takes time for negative or positive changes. This also includes a poor tolerance of the intensive therapeutic regimens, with the exception of emergency, life saving procedures. This thoughtful approach to disease and its treatment may be articularly relevant considering
Inflammation, the hallmark of chronic and degenerative conditions, which occur gradually and in time. Therefore, in Tibetan practice, it is medically correct to take time for the body to be able to heal itself at the level of systems and organs rather than to quickly, and too often deceptively, eradicate symptoms. Usually the herbal and mineral treatments in Tibetan medicine are seen as a form of concentrated food that is addressing a particular deficiency or need of the ailing organism. In general, a treatment starts with a digestive formula because of the perception that most diseases take origin in malfunctioning of the digestive tract. Conversely, without a properly functioning digestive tract, the delivery of medicine to the specific ailing organ and system of the body is inefficient and ineffective.

Particularly relevant to the treatment of chronic inflammatory disorders in Tibetan medicine is the design of some of the multi-component herbal and mineral formulae. They are composed of the ingredients that act in one of three ways: (1) to carry out the main therapeutic action, (2) to support this action, or (3) to counteract side effects (of the first two groups) and improve the gastrointestinal functions (nutrient absorption).

Ayurveda and Tibetan materia medica also offers single anti-inflammatory compounds like boswellic acids isolated from the resin of Boswellia serrata tree (fam. Burseraceae) and curcuminoids, yellow principles of turmeric or Curcuma longa (fam. Zingiberaceae). This component has been utilized in an anti-inflammatory formulae known now as an Arthritis Formula.

A double blind crossover trial of the efficacy of Boswellic acids in rheumatoid arthritis was carried out on 30 patients (1). Boswellic acids were administered orally in a dose of 200 mg three times a day, and the control group received a matching placebo containing lactose. The mean arthritic score in the group receiving boswellic acids came down after four weeks by more than threefold as comparing to the control group; the mean erythrocyte sedimentation rate (ESR - a useful laboratory index of inflammation) in the active group was reduced from 65.93 to 49.2. As a result of substituting boswellic acids with a placebo (crossover), the arthritic score indicating and ESR rose again, indicating reactivation of the inflammatory process in arthritis. The therapy with boswellic acids has been found free of side effects associated with most of the anti-inflammatory drugs.

The anti-inflammatory properties of curcuminoids were tested in a double blind clinical trial in 49 patients with rheumatoid arthritis (2). Curcuminoids administered at a dose of 1200 mg/per day for up to six weeks produced a significant clinical improvement in all patients. All patients showed overall improvement in morning joint stiffness and physical endurance. The therapeutic effects were comparable to those obtained with a standard anti-inflammatory drug, phenybutazone. Both curcuminoids and phenybutazone failed to reduce the ESR. Curcuminoids like boswellic acids have been found free of side effects commonly attributed to other anti-inflammatory drugs.

An interesting approach to the treatment, rather than alleviation, of the inflammation in
Rheumatoid arthritis has been recently proposed with nutritional use of bacteria producing lactic acid, i.e. lactobacillus plantarum, lactobacillus acidophilus and lactospore (3). The therapy with sour milk (the sour taste is due to presence of lactobacilli culture in the milk) is not indigenous to Ayurveda medicine, but has been in general, practiced in Oriental medicine long before Dr. Metchnikoff (a Russian Noble prize winner in immunology) recommended it at the beginning of this century. The currently proposed use of lactobacilli therapy is aimed at treatment of “leaky gut” syndrome, and stopping the self-perpetuating mechanism of inflammation. This therapeutic approach with probiotic bacteria would, in principle, eradicate the pool of anaerobic bacteria (not needing oxygen for survival). The kind of bacteria implicated in “leaking” through the gastrointestinal wall, with resulting long-term inflammatory process.

Thus the mechanism of inflammation and its treatment should be carefully revisited, to attempt to understand the cause of the disease and to provide a causative treatment whenever possible. On the other hand, a cautious use of anti-inflammatory and pain relieving OTC medicines should be advocated. We should realize that the quick relief from annoying symptoms with an “extra strength” brand of a medication can make us feel temporarily better, but “better” may not be the same as being well. Therefore the proper approach to an inflammatory condition should be characterized by a measured not a rushed approach, a position advocated by Ayurveda and related medical traditions.

