

Factors to Consider in Conditions of Multiple Inflammation

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In times of illness, it is not unusual for patients to present with multiple ailments. In most cases, this is down to a generalised dysfunction of several important systems. This in itself can be caused by a number of factors, the common thread being a lifestyle, dietary intake or chemical exposure that our evolution has not yet had chance to adapt to.

Our bodies are incredibly successful at adapting to new situations, nutritional shortfalls and changes in routine; historically, our survival has depended on this ability and, for most people, it is called into action on a daily basis to remain relatively healthy in the modern world. But will the added stress, dehydration, refined and imbalanced food intake and frequent lack of quality sleep, it is no surprise when the body begins to present with multiple dysfunction.

One of the first things to address is stress levels. This is something that affects the operation of all organs but especially the adrenal glands, which can be considered to be our 'life-force' and have incredibly powerful effects on our energy levels, mood, alertness, inflammation throughout the body and the efficiency of our immune system. This is why sufferers of respiratory problems, migraines, epilepsy, etc will find that their symptoms are much more pronounced in times of stress (in many cases are only noticeable in these times). Stress does not simply refer to psychological 'worry'-type stress, but an array of 'stressors' that include stress from cold, injury, intense exercise as well as tiredness and hunger.

This can result in adrenal fatigue that, in a more advanced stage, normally results in a deficiency of cortisol, the body's anti-inflammatory substance. As asthma, hayfever and ulcerative colitis are all inflammation-based issues, any imbalance in the availability of cortisol will promote this and other similar issues. In the case of the allergic patient, the asthma attacks are not there all the time, but the conditions that make them possible are; only a minor trigger is required to initiate an attack, and this is provided by contact with an allergen. Therefore, dealing with both the individual's sensitivity to a particular substance is extremely important but, for a more complete approach, correcting any underlying conditions that promote allergy is paramount.

Improving dietary intake is one of the most important aspects in this respect. As mentioned above, hunger is a major factor in increasing stress load on the body as it causes low blood sugar levels. Any endured periods without taking in sufficient foods must therefore be avoided, and also consumption of sugars and refined carbohydrates (eg white bread) should be kept to a minimum, as this causes a 'sugar spike' of the blood sugar levels that is equally stressful.

As well as ensuring enough protein is consumed regularly for the production of hormones, enzymes and neurotransmitters, one particular substance that would be of use to patients

suffering these multiple issues would be the addition of flax seed oil into their diet. Undamaged, unrefined flax seed oil is the most abundant source of omega-3 essential oils available to us. Inside the body, they convert to a substance called prostaglandins (specifically series 3 prostaglandins) which reduce inflammation in the body. This anti-inflammatory role is active at joints, the respiratory and digestive tracts, together with all types of tissue throughout the body, making it a vital player in combating a host of different afflictions. Asthma, hayfever and colitis all respond very well to the omega-3 oils contained in flaxseed oil (also contained within oily fish).

Of course, an upgrade in diet is only part of the picture. It is no co-incidence that the allergy patients I see have often found that their allergic symptoms have only presented in times of endured stress. Through its affect on the hormonal cascade from the hypothalamus down, and its direct effect on the adrenal glands, stress has a potent effect on energy levels, mood and the immune system and, vitally, digestion. Without good digestion we cannot absorb the nutrients required for efficient functioning of the body. Illness, disease and inflammation inevitably occur.

There are some specific nutrients that support the immune system. These are critical. Here, I am talking about zinc, probiotics and bucketloads of anti-oxidants that are required to balance out Th1/Th2 balance in the immune system. Together with Vitamin D3 and Iodine especially, these anti-oxidants improve the power of the white blood cells to attack, engulf and dispose of any invading bacteria, virus or fungi. Ironically, if these pathogens are not destroyed, a low-level battle ensues, which not only drains the dwindling stores of anti-oxidants, but ensures a persistent and widespread inflammation.

Good sleep is also a vital ingredient in restoring balance within the body. It is during deep sleep that the majority of healing and repair will occur in the body, but not if the sleep is of insufficient quality. There are five stages of sleep – stage one and two are seen as light sleep from which we are easily woken; stage three and four are crucial 'deep sleep' where your body does most of its physical recovery; the last stage is called REM (Rapid Eye Movement) and is where the body does most of its mental recovery. It takes around 90 minutes for most people to move through this sleep cycle.

If we do not get sufficient sleep, the body will begin to show signs of disrepair. As well as increased damage accumulation to tissue, there will also be little release of growth hormones, powerful anabolic substances that encourage your body to heal/strengthen/repair.

There can be several reasons that an individual does not get enough deep sleep, from simple worry to more specific nutritional deficiencies. The human mind is very active during the day, producing brain waves of an 'alpha' frequency (8-13Hz) (In a stressed, over-anxious 'beta' mode, the frequency is around 14-18Hz. For the body to enter deep sleep, the brain must slip into 'delta' mode, operating at a low 0.5-4Hz. This requires the presence of inhibitory neurotransmitters such as GABA (gamma-amino-butyric-acid), serotonin and histidine – if the diet is short of the specific nutrients, contained in protein, then difficulty in sleeping is a likely result. Other deficiencies, especially the tissue-relaxant magnesium, should also be investigated. The issue of dietary intake affecting sleep patterns is a classic example of why enough consideration must be given to all aspects of a patient's daily lifestyle, including the overlaps and links that occur between different factors.

Even with sufficient stress patterns, good food and sleep, it is still easy to leave the body short of the vital ingredients that it requires each day for optimum health. Chronic dehydration is a very widespread condition in the western world and, as water is the major factor in each and every cell, consequences can be very widespread. It has significant effects on mental function (the brain communicates with itself and other areas of the body through electrical impulses of the central nervous system, highly dependant on water) and therefore related functions, digestion (without sufficient water, hydrochloric acid cannot be produced and therefore proteins cannot be broken down), immune system (a shortage of water causes the body to over-secrete histamine, an important signalling chemical in immune system/allergic reactions), and every system of the body.

In terms of supplementation, there are several angles that should be considered. Each patient will have a variation in there symptoms, a variation in their cause also and, as a therapist, it is important to pay attention to these matters as well as respect the biochemical individuality. However, all my clients are likely to leave with a recommendation for a high-potency multivitamin, additional anti-oxidants to support the immune function, together with iodine, magnesium, zinc. Vitamin D3 supplementation should also be considered if sunlight exposure is not possible.

For any individual who is facing endured stress, or who is recovering from the effects of stress, a high strength Vitamin B Complex and 1000-3000mg Vitamin C are essential. In some cases of adrenal sufficiency, Pantothenic Acid, Licorice Root or DHEA may be of use in bringing the output of these important glands back into balance.

As mentioned earlier, sufficient water is vital to allow the body to function properly. Although a specific target is not necessary in most cases, ensuring every meal is accompanied by water and that another glass is consumed inbetween is enough water. It is important to highlight the difference between consumption of water and consumption of other drinks; tea and coffee, for example, contain a lot of caffeine which causes dehydration. In some cases, a patient does not hold onto water very well; this is normally down to electrolyte imbalance and deficiencies of potassium, magnesium and even salt must be investigated and rebalanced.

The issue of digestion must be addressed. Ironically, poor digestion leads to poor absorption of nutrients, which leads to deficiency of digestive enzymes and further poor digestion. Temporary intervention to correct this 'Catch 22' situation is a simple procedure; digestive enzymes, betaine HCl, psyllium husks and probiotics/prebiotics have remarkable but reliable effects of improving a poor digestive function, together with suitable food intake. Flax seed oil and glutamine powder can be very useful to help the body repair the cilia that line the intestine.

For individuals who struggle to get to sleep quickly, valerian root is a useful herb that exhibits light sedative effects. For those that get enough sleep but find themselves waking early, hydroxytryptophan (the precursor to serotonin) is useful. For those whose lifestyle dictates that they change time zones or sleep at different times throughout the week, melatonin is highly beneficial.

There are some worthwhile supplements for these particular afflictions. Asthma sufferers

will respond very well to magnesium – a muscle relaxant – if they are deficient in this mineral. Some hayfever patients may respond extremely well to Luffa complex, whereas others will not. In any case, having assessed and recommended specific supplements for patients, I would always combine this with a suitable strength daily multivitamin. This is something I would recommend for all 'healthy' individuals who wish to stay healthy, as it is the cornerstone of any supplementation regime, covering all the basic angles.

To summarise, there is no one angle of enquiry in dealing with inflammation-based problems such as asthma, hayfever or ulcerative colitis. Besides from desensitising the body to any allergen that causes flare-ups, it is important to look at the person as a whole; what they are eating, how well they are absorbing this, whether they have the nutrients they require for optimum health and their stress and sleep patterns. Only by establishing lifestyle patterns that we have evolved in harmony with, can the body rebalance its systems to bring about a return to optimum health.

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