The Hypoglycemic Health Association

NEWSLETTER

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The NEWSLETTER of the Hypoglycemic Health Association is distributed to members of the Association and to Health Professionals with an interest in nutritional medicine and clinical ecology.

Recently, an American psychiatrist claimed on National radio that Attention Deficit Disorder (ADD) did not exist, followed by an Australian psychologist on the same program who asserted that it was all in the mind. This goes to show that we still have a long way to go informing parents of hyperactive children, now taking Ritalin, that there are alternative means of alleviating this devastating syndrome. This is a classic example of the battle between “nature” and “nurture”, and “nutrition” ignored. The dilemma applies to treatment of so many other modern illnesses, such as schizophrenia, Alzheimer's disease and so on, where true medical research is blind.

The HEALTH NETWORK OF AUSTRALIA (see page 3) has been formed to inform politicians in Canberra that 30% of patients consulting traditional doctors already visit medical practitioners outside the mainstream medical system. These patients want Canberra to know, that they want to be able to choose between for instance heart surgery and Chelation therapy (latter not covered by Medicare), thereby saving the Government billions of medical dollars. The patient's choice depends on some medical knowledge. We aim to acquaint members with the basic principles of preventative medicine providing a basis of communication between the patient and wholistic medical practitioner. Because we are a voluntary organisation, totally dependent on membership fees, we urge those members who have not as yet paid to forward their fees ($15 p.a. per family & $10 for pensioners and student) to the Association as soon as possible. Your expiry date is shown in the left hand top corner of the address label. We also would like to receive some donations from medical practitioners as a show of appreciation for information provided in this Newsletter.

Our Next Public Meeting will be at 2 PM on Saturday, the 1 June, 1996 at the YWCA, 2 Wentworth Ave, Sydney and our guest speaker is

Dr Robyn Cosford who will be speaking on the subject of

“Down Syndrome: Inevitable mental disorder or treatable metabolic disorder? A ray of hope!”

Dr Robyn Cosford is a mother of five with a close family experience of two Down Syndrome children. She graduated from Sydney University with an Honours degree in medicine, and has done pre- and post graduate studies in homeopathy, nutrition, herbalism and acupuncture.

She has a particular interest in mothers and children, in particular children with behavioural and learning difficulties.

Recent experience has shown her that Down Syndrome children are a particular categories of these.
HEALTH encompasses much more than just remaining free of disease. Our perception of health arises from many areas, what we consider to be an acceptable level is determined by our health history, that of our family’s and what is generally accepted as normal within the community. The World Health Organisation incorporates our well being on physical, mental and emotional (spiritual) levels into their definition of health¹. Health is a balance between these levels, health care providers are becoming more familiar with issues other than those on the physical level, but largely the onus remains on the individual to maintain this balance not only by seeking assistance while experiencing ill health but by adopting strategies and attitudes while in health to preserve and enhance it.

A wholistic approach to health aims at nurturing and supporting rather than reacting. This is particularly important with chronic conditions to prevent a gradual decline of health.

Pathology test
Specialist health services such as pathology are useful aids in diagnosis and monitoring, but are of limited value without clinical information and management strategies. High specificity of such investigations may allow contributing factors to remain undisclosed, and evaluating such isolated parameters makes it hard to make sense of the data in light of the whole. High sensitivity, while increasing our confidence in detection, raises questions about the significance of our results. The concept of Normal Range (NR) defines boundaries by which we compare results between individuals. For a given parameter, a person is considered normal if their result appears within determined deviations from the mean result of a random population (for example, within 95% of all results). However, symptoms indicating disease may manifest in individuals with parameters within the normal range, conversely individuals may have parameters consistently outside the normal range yet demonstrate themselves to be in perfect health.

Self monitoring of glucose levels
Frequent monitoring of blood glucose levels is essential in management of disorders of blood sugar metabolism. While self monitoring is undesirable as the sole means of monitoring blood sugar control, its convenience and acceptable accuracy makes it indispensable, as frequent monitoring allows the patient to take more responsibility for their own health. It is important for the individual to understand what is normal for themselves. Studies continuously question the significance of results. While it is generally accepted that a blood glucose level of below 2.5 mmol/L...
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NR 3.5 - 8.5 is a good indicator of hypoglycaemia, subjects with poorly controlled diabetes have experienced hypoglycaemic episodes at blood glucose levels of 4.3 mmol/L, and normal subjects, especially young females, may generate glucose levels as low as 2.2 mmol/L during a prolonged fast. The value of symptoms is therefore important, what is occurring at the time we experience ill health. A study appearing in the New England Journal of Medicine concluded that it is necessary to determine blood glucose levels at the time hypoglycaemic symptoms appear (adrenergic neural activation leading to weakness, palpitations, tremor, perspiration and hunger) to achieve diagnostic significance. It was stated that reactive hypoglycaemia was very difficult to diagnose, but ‘Characteristically the symptoms improve when the patients follow a diet with high levels of protein and restriction of carbohydrates. While this study proposes difficult methods of diagnosis, it identifies dietary management as the key to avoiding hypoglycaemic episodes5.

Glucose Tolerance Test (GTT)

The value of the oral Glucose Tolerance Test (GTT) has been disputed for many years but is still often the front-line test when investigating disorders of glucose metabolism. Normal subjects often show transient hypoglycaemic levels, which as the former study suggests, may not be detected as blood is drawn at predetermined intervals. More recently it has been suggested that insulin levels should also be assessed during symptomatic episodes6. This differentiates between scenarios of suppressed insulin secretion and inappropriately increased insulin secretion, and may yield more useful information than the GTT. This technique, while still impractical, gives us a greater understanding of the principles that govern overall glucose economy. Variability of self monitoring blood glucose levels, and frequency of past hypoglycaemic levels are significant predictors for severe hypoglycae-
Other factors are becoming evident that suggest psychological influences. A recent study associates emotional distress with post prandial hypoglycaemia. Suspected sufferers displayed normal GTT’s while displaying higher adrenergic sensitivity and emotional distress as defined by significantly higher anxiety, somatization, depression and obsessive-compulsive scores than controls1. The mind-body influence is becoming more apparent, our health is impacted on many levels, the wholistic practitioner pays attention to these levels to maintain balance.

General health governs our reaction to the environment, while in health we can expect to react appropriately to various stimuli, a shift in balance may cause an inappropriate or insufficient response. Susceptibility is also involved, not everyone succumbs to the winter flu, but importantly, those that do succumb and recover well could nevertheless be said to be in reasonable health. When we are debilitated from long work hours or constant exposure to detrimental stimuli (unnatural light, electro magnetic radiation, fast food, smog etc.) we are more likely to succumb to disease. Our nervous system may for example place extra demands on our resources. Continual pressure will tax our health and lead to disease and pathological change. Heredity is also a force that predisposes us to disease expression. By supporting the systems under direct strain and others that may be secondarily involved we can reduce susceptibility and increase general health.

Other diagnostic tests

Novel tests are available that allow a general view of body function, assessing overall health while identifying areas of compromise.

The Clot Retraction Test (CRT or HLB, after Doctors Heitan, Le Garde and Boland) indicates the level of oxidative stress on the body due to the presence of Reactive Oxygen Toxic Species (ROTS) or Free Radicals (FR). Free radicals are unstable, reactive molecules, often incorporating the element oxygen, which occur in the body as a result of physiological processes or are introduced as an oxidative load from the environment. The liver based enzyme detoxification pathway produces intermediate free radicals, as does the immune system in response to invading organisms. Free radicals may be ingested in the form of cigarette smoke or from other environmental sources. Inflammatory or degenerative processes increase free radical activity, and many researchers believe all destructive processes, including cancer, have a strong association with free radical activity. Anti-oxidants (vitamins A, C, E, beta carotene, selenium) reduce the damage caused by free radicals, and are supplied in our diet from various sources, mostly fresh fruit and vegetables. Supplementation is generally accepted as the best way to ensure sufficient anti-oxidant activity and is indicated in active pathological processes or if a person is exposed to environmental sources of free radicals. An overview of free radicals in health and disease can be found in Florence and Setright’s book ‘The Handbook of Preventative Medicine’15.

Interpretative Notes

Originally described in 1950, the CRT was developed as a bedside Erythrocyte Sedimentation Rate test (ESR), a commonly requested pathology test, found elevated with alterations to the charge on the red cell surface and other (especially immune mediated) processes. It was subsequently determined that retraction patterns differ between individuals, this was further associated with various pathological processes. A small finger prick sample is collected and viewed under brightfield, darkfield and phase contrast illumination. In health, the retraction pattern appears as an even distribution of red cells with dark lines of fibrin, much like the appearance of cracked clay. ROTS masses appear as areas of contrast resembling small pools of water. These masses indicate oxidative processes and are classified according to their: 1. Extent. 2. Location within the drop. 3. Colour. 4. Inclusions.

The extent of the ROTS involvement is proportional to the degree of oxidative stress within the body, suggesting inflammatory or degenerative processes causing tissue damage. Treatment with anti-oxidants and anti-inflammatories reduce the oxidative stress and so also reduce the extent of ROTS involvement in the sample. Oxidation may be generalised or may appear associated with organs/systems. The periphery of the drop corresponds to superficial organs, the centre refers to deep organs. Oxidation in specific regions may indicate digestive disturbances, hormone imbalances, allergies and other disturbances, generalised oxidation suggests systemic involvement, such as in systemic auto immune diseases. Heavy smokers may progress from localised oxidation (in the lung) to significant generalised oxidation as damage becomes more widespread.

The colour within the ROTS masses is noted. Rheumatoid arthritis and respiratory diseases display a blue or chrome tinge. Inclusions may be present within the mass. Needle like projections of fibrin indicate high loads on the liver, sialic acid ‘bubbles’ appear if pancreatic function is compromised, necrotic tissue may be observed during vigorous therapy such as chemotherapy or radiotherapy, fungal forms appear within the masses during digestive disturbances (an imbalance of gut bacteria).

Other markers

Allergy and adrenal hyper-function show as small, translucent droplets differing in size, appearing either toward the centre or evenly distributed. Colour variation of the red cell mass reflects various states of toxicity, including colo toxicity and heavy metal toxicity. Pallor of the sample suggests anaemia, and warrants further investigation.

Endocrine (thyroid and reproductive organs), circulatory, and lymphatic markers reflect the current status of these systems. It is interesting to note that endocrine markers appear during normal menstruation, for this reason the test is performed outside menstruation. Poorly defined boundaries of the drop indicate lowered vitamin C levels, this observation may be utilised to optimise anti-oxidant therapy.

The CRT provides the practitioner with important information on their patients current health status. Being an interactive test the patients view and discuss their results, and accordingly gain more understanding of their own health.

Live Blood Analysis (LBA), used in conjunction with the CRT, provides more information regarding immune status, digestion, and blood cell morphology. While investigating routine haematological parameters, the LBA views blood under darkfield and phase contrast microscopy immediately after collection without the use of stains. Activity of blood cells can therefore be ascertained, and major features identified. Changes in red cell morphology (size and shape) indicate many conditions from simple iron deficiency anaemia to acquired disorders of red cell formation. Excessive red cell clumping is associated with poor digestion of fats and/or proteins, individuals with red cell aggregation often complain of poor circulation or are sensitive to changes of environment, and often improve when digestion is enhanced.

White cell activity and viability is a unique investigation. Significant numbers of poorly motile or non viable white cells is often associated with general debility and lowered immunity, patients often complain of feeling unwell for a long time. More recently associations with such symptoms and unresolved viral infections (such as glandular fever) have been made, activated lymphocytes are often observed in patients with such symptoms. Infections manifest as a change in the white cell population or morphology. Other markers include crystals of various composition, the most noted being uric acid in rheumatic conditions. Lipid (fat) and cholesterol deposits may also be seen, associated with atherosclerosis.

These novel tests, like any diagnostic test,
are to be interpreted in the light of clinical findings. A broad view is often called for in the first line of diagnosis, the CRT and LBA provide sufficient range for the practitioner to gain a holistic understanding of the situation. Involvement of the patient during the tests allows meaningful dialogue and offers greater involvement in one's health.

References
1) The current W.H.O. definition of health is ‘A state of optimal, physical, and social well being, not merely the absence of disease and infirmity’.
6) Polonsky W. “Frequency of severe hypoglycaemia in insulin-dependent diabetes mellitus can be predicted from self monitoring blood glucose data”. J Clin Endocrinol Metab. 1994: 79: 1659-1662.

Pheromones and female room-mates

S. I. Fox

The influence of higher brain centres of the pituitary-gonad axis helps to explain the “dormitory effect” in which researchers have noted a tendency for the menstrual cycles to synchronize in women who room together. This synchronization of menstrual cycles does not occur in a new roommate if her nasal cavity is plugged with cotton, suggesting that the dormitory effect is due to the action of pheromones. Pheromones are chemicals ex-Continued on page 6

Herpes infections

By Jur Plesman

More than 70 viruses compose the herpes family. Of these four are important in human disease - Herpes simplex (HSV), Varicella zoster (VZV), Epstein-Barr (EBV) and cytomegalovirus (CMV).

Herpes simplex known as cold sores or fever blisters is caused by the virus Herpes simplex (HSV-1). Herpes comes from the Greek word, meaning ‘to creep’. The infection occurs in two stages. In the first stage blisters form on the inside of the mouth, then develop into painful ulcers. There is swelling of the gums with a general malaise often accompanied by a temperature. Illness is more noticeable among older people, but the attack is usually mild in young children. The infection subsides and the virus lies dormant in the skin.

In the second stage the dormant virus is re-activated as a result of stress, usually a cold or exposure to the sun or wind. A blister forms on the edge of the lip or nearby, and then bursts to become a typical encrusted cold sore.

Cold sores present no serious risks. However, if during the first stage, the body has no resistance to the virus, one touches an ulcer and then the eye, it could cause the formation of an corneal ulcer. Women with HSV infection late in pregnancy may transmit the infection to the foetus. This could cause fatal inflammatory condition of the brain (encephalitis).

Herpes genitalis is caused by the Herpes simplex virus (HSV-2) is thought to be due to the HSV-1 virus in at least 10-40 percent of cases. After an incubation period of usually less then 10 days there is an itchy feeling on the shaft of the penis or on the vulva (the female exterior genitals), followed by the appearance of a crop of blisters, firmly attached to the underlying skin which causes the pain. They can also occur on the thighs and the buttocks. After 24 hours the blisters burst and leave small, red, moist and painful ulcers, which often go on to form hard crusts. The glands in the groin may become swollen and painful, and there may be a general debility accompanied by a raised temperature. Healing usually begins 7-10 days after onset and is complete by 21 days. Healing may be slower with secondary inflammation.

The infection affects both sexes and particularly people who have not had cold sores on the face. It is caught through direct contact with contaminated tissue, fluids (including sexual fluids), saliva, skin discharges and during sexual intercourse or through oral sex with someone who has cold sores.

HSV-1 has a recurrence rate of 14 percent, while HSV-2 has a recurrent rate of 60 percent.

Herpes zoster (Shingles)

Also known as Zona, Acute posterior ganglionitis is an acute infection caused by reactivation of the latent chickenpox virus, varicella zoster virus, affecting mainly adults...

Therefore it can develop only in people who have had chickenpox at some time in their lives. The disease is characterized by the development of painful blisters that follow the underlying route of cranial or spinal nerves inflamed by the virus. The inflammation is usually on one side of the body (unilateral), although both sides may be involved. ‘Zoster’ means girdle in Greek. The virus may lie dormant in the posterior root ganglia associated with thoracic (related to the chest) and trigeminal nerves. It is most common after the age of 50.

While chicken-pox may be caught from a patient with herpes zoster, the converse is not true. The infection may be preceded by a period of 3-4 days of chills, fever, malaise and gastrointestinal disturbances. On about the 4th and 5th day blisters appear which follow the nerve root underneath the skin accompanied by severe pain. Most often the eruption occurs on one side of the chest area. But the infection may also involve the facial nerve roots, in which case painful blisters may appear on one side of the face. In all cases of shingles (or of all herpes infections for that matter) a doctor’s advice should be sought to prevent some serious repercussion to other organs such as the eyes or ears that may become affected. In rare circumstances it could develop into encephalitis.

The scales and blisters may disappear after three weeks, leaving some scarring. The pain may also disappear but sometimes persists for months after the rash has cleared (postherpetic neuralgia).

HSV becomes dormant within nerve ganglons and may be activated by radiotherapy, sunburn, sexual activities, extended grief, menses, stress, food allergy, drugs and certain foods.

Traditional treatment:

The problem with medical treatment is that by the time the diagnosis is made much of the damage is often already done. Another handicap is the speed with which the virus multiplies, hence the importance of early intervention. Chemotherapy has limited application. Some antiviral drugs such as idoxuridine
Lithium in the ointment helps to interfere with the replication of DNA-type viruses without affecting the host cells.

8) Some therapists recommend application of an equal mix of lemon and water directly to lip sores.

9) A lysine-richarginine poor diet is based on the fact that lysine (an amino acid) has an antiviral activity. Arginine-rich (another amino acid) protein appears necessary for replication of the herpes virus.

Lysine (at a dose of 2 grams 2,000 mg per day (obtainable from health food store or doctor) should be taken but when the diet is high in arginine, compared to lysine it may not be effective. In some patients’ withdrawal from lysine may cause a relapse within 1-4 weeks. Note that large doses of lysine may increase cholesterol levels and these levels should be monitored when taking large doses of lysine.

Generally, vegetables proteins have large amounts of arginine, whereas animal protein have balanced levels.

Avoid arginine in: Almonds, Brazil nuts, Buckwheat, Carob, Chocolate, Cashews, Hazelnut, Lentils, Linseed, Millet, Cooked Oatmeal, Oysters, Peanuts, Green peas, Chick peas, Sesame, Sunflower, Walnuts.

Herpeschooseshigh lysine/arginine ratio found in: Beef, Cheese, Fish, Fish fingers, Chicken, Cheddar cheese, Chicken, Eggs, Clams , Halibut, Lamb, Liver (beef), Milk, Lima beans, Red beans . Brewer’s yeast, Mung bean sprouts, Pork (lean), Potatoes, Salmon, Sardines, Prawns (shrimp), Tuna, Turkey, Yeast. Most fruits have a lysine excess. Vitamin C is protective of lysine.

10) Herbal therapy Glycyrrhizic acid, a component of liquorice root (Glycyrrhiza glabra) inhibits growth and cell-damaging effect of herpes simplex. It is in the form of Glycyr rhizic acid ointment three times a day.

B) Homeopathy

If the skin is blistered, red and itchy Rhus tox. 6 should be used. If the skin burns and stings, apply cold application such as Apis Mel. For severe pain and itching, use Mezereum. If the patient finds it uncomfortable to move and his appetite declines, Ranunculus may help.

C) Aromatherapy

Treatment should start at the very beginning when symptoms appear. Three drops each of geranium, sage and thyme in 20ml of carrier oil or lotion may be rubbed into the affected area. If skin is sensitive to touch it should be dabbed on gently. Alternatively, the same number of drops in a small glass of water may be helpful when poured onto the shingles, or applied as a compress.

D) Acupuncture

After the initial rash has subsided, the neuralgic pain can be treated by strong stimulation at points on the following meridians:

- Stomach, large and small intestines, and governor. Pain points next to the rash may also be used to relieve neuralgia.

Foot Notes

1) A ganglion is a mass of nerve tissues forming a subsidiary nerve centre which receives and sends out nerve fibres.

2) Trigeminal nerves, also called fifth cranial nerve, nerves trigeminus or trigeminal nerves are essential for the act of chewing, general and muscular sensitivity of the face. It splits into three branches; 1) ophthalmic, 2) maxillary and 3) mandibular, roughly 1) around the eyes and forehead, 2) side of the face and 3) jaw respectively.

Continued from page 5: Pheromones

A casual glance in shopping trolleys would suggest that people have changed some of their perceptions of what is good or bad to eat, and retailers are increasingly catering to the new demand for ‘healthy’ foods. Perhaps it’s time to take stock of how we’re doing, and find more precisely how eating habits have changed, and to what extent people’s knowledge of nutrition has improved.

For at least a decade, nutritionists have been taking their message to the public - aid by governments and bodies such as the National Heart Foundation - in an effort to improve our health through the promotion of good eating habits.

A casual glance in shopping trolleys would suggest that people have changed some of their perceptions of what is good or bad to eat, and retailers are increasingly catering to the new demand for ‘healthy’ foods. Perhaps it’s time to take stock of how we’re doing, and find more precisely how eating habits have changed, and to what extent people’s knowledge of nutrition has improved.

Are there differences between the sexes and age groups, between city- and country-dwellers, or between different social groups in their patterns of nutrition and knowledge? An what remains to be done to improve the eating habits of the nation?

In an effort to find out, Dr Katherine Baghurst of the CSIRO Division of Human Nutrition in Adelaide carried out a survey in South Australia in August 1988. Of the 901 adults taken at random from the electoral rolls who completed detailed questionnaires, about half lived in Adelaide’s metropolitan area, while the other half came from the rest of the State.
As well as detailed questions on what they ate and how they prepared the food, Dr Baghurst and her team also asked the subjects whether they thought that they currently ate too much, too little, or about the right amount of various nutrients.

For macronutrients - such as protein, fat and sugar - and for salt and fibre, just over half the subjects felt that their intake was about right. In fact, an analysis of their reported diet showed, only about 30% fell within the recommended guidelines.

With complex carbohydrates - popularly referred to as starches - it seems we have less confidence in our own assessment: nearly half of the respondents stated that they did not know whether their intake was high, low, or about right. Only 1% thought that they ate too little. But, truth to tell, it turned out upon analysis that very few respondents were eating enough complex carbohydrates.

Confusion also surrounded the term ‘energy’ as used in nutrition. We have all heard of calories or kilojoules and many of us slavishly count them! But apparently plenty of people don’t realise that these are merely measurements of the energy value of foods. One-third of all respondents felt that their calorie intake was ‘too high’, but only 5% thought that they consumed ‘too much energy’. Not understanding that one is a measure of the other, many people think that calories are bad, whereas energy sounds good and ‘positive’, and something we would all like to have more of!

The survey showed that women consumed more low-fat products than men, and tended to cut the fat off meat and use less fat in cooking. However, despite this, the percentage of their total energy derived from fat was the same as for the menfolk. This was probably because they consumed more dairy products, cakes, pastries, chocolate, and salad oils.

Using a means devised by sociologists for classifying people into five groups according to their status of their occupation, Dr Baghurst found significant differences between the socioeconomic classes. Men in the highest group - professional and managerial people - ate more fibre and less fat than those in the lowest one, who predominantly unskilled manual or clerical workers. The middle three occupational groups consisted of semi-professional and skilled manual and clerical/sales people. In women, those in the lowest group consumed far more fat than those in the top four groups, which were all about the same in their fat consumption.

Men tended to eat more cholesterol than women, and the lower their occupational group was the more of it they ate. Those in non-­metropolitan areas consumed the most. The top occupational category had a higher intake of wholemeal bread, reduced-fat milk, and fruit juice, while those in the fifth class ate more white bread, lamb, sausages, whole milk, sugar, sweetened soft drinks, and beer.

However, members of the top group were not all good in their habits: they consumed more alcohol than the other social groups - mainly in the form of wine, port, and sherry - especially if they lived in the city.

In general, women ate more vegetables, fruit, fish, poultry, cakes, pastries, and dairy products than men, who instead ate more cereal foods and meats. As you may expect, younger people tuckered into more confectionery, snack foods, and soft drinks than the older generation, which made up with green leafy vegetables and more wholemeal bread and potatoes.

On the basis on what the respondents reported that they ate, Dr Baghurst calculated their intake of various vitamins and minerals. The interesting finding here was that a surprisingly large number of people received less than 70% of the recommended daily allowance (RDA) - a level generally regarded as signifying a risk to health - for various important nutrients.

Zinc was the element whose intake was most likely to be inadequate, with 40% of all women and 27% of men falling below the 70% level.

Deficiency of calcium was also a risk, with 17% of women and 11% of men receiving what is regarded as too little.

As usual, iron showed up as an element for which women need to be alert to ensure that their diets provides a plentiful supply. Because of regular loss of iron in the blood through menstruation, women need more of the element than men, and for 18% of those surveyed the diet contained too little. None of the men fell below 70% of the RDA for iron.

Folic acid, or folate - a necessary organic compound that we cannot synthesise - was also too low in the diets of 12% of the men and 14% of the women in the sample.

Meat and dairy products are good sources of zinc and folate, and the decline in the consumption of these products in response to the nutritional message to reduce the intake of fat might have been responsible for the findings of the low levels of the two nutrients in the diets of so many. Recent studies in other ‘Western’ nations have given similar findings.

However, that does not mean that we need to return to high levels of consumption of animal products. Whole-grain cereals and nuts are relatively rich in zinc, while green leafy vegetable, bread - some will be relieved to hear - are examples of good sources of folate.

Compared with the findings of similar surveys in South Australia carried out about 10 years ago, the typical diet has slightly improved. Consumption of fat and refined sugar has decreased a little, while that of fruit and fibre has increased. How?

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SYSTEMIC LUPUS ERYTHEMATOSIS (SLE) is an auto-immune disorder, which inflames and damages connective tissue in any part of the body. It is one of a group of disorders known as collagen diseases. One form is the discoid lupus erythematosus (DLE), which is a chronic skin disorder that most commonly occur in middle-aged women.

Auto-immune disorders can be explained as the body rejecting part of its normal tissue for an unknown reason. SLE is closely related to rheumatoid arthritis. It sets up an intense inflammatory reaction in an attempt to reject the ‘foreign’ body as in organ transplants. ‘Systemic’ refers to the general system or condition, Lupus (lupus = wolf), refers to the lupine or wolf-like appearance of rash across cheeks and nose; and ‘erythematosus’ (erythema = red rash) refers to red skin as often a rash appears. Exposure to the sun may aggravate that rash.

Although SLE has a genetic component, it is not directly inherited like haemophilia. However, there is 1) a higher occurrence in monozygotic twins, 2) a higher incidence of SLE or other connective tissue disorders, antinuclear antibodies (ANA) and immune complexes in related family members.

Environmental factors include: 1) The effects of sunlight which may provoke the disorder, 2) certain drugs can induce SLE, 3) the importance and effects of oestrogens, which may trigger the disease during pregnancy and the period immediately following childbirth (puerperium) and increased prevalence among fertile women, 4) the use of contraceptive drugs and 5) men with Klinefelter’s syndrome having abnormal sexual hormones. In animal studies there is evidence of a viral infection, but in humans the findings are inconclusive.

Symptoms

SLE can only be diagnosed after thorough medical investigation as its multiple and varied symptoms may be mistaken for other diseases. It causes inflammation of various membranes that surround the kidneys, joints, lungs, and other organs, such as the heart. It is capable of attacking any organ of the body and hence the symptoms may vary depending on what tissues are affected. In many cases the skin of both cheeks and across the bridge of the nose presents a ‘butterfly rash’. Other areas exposed to the sun also may show a rash, such as mouth ulcers. Skin lesions are seen in more than two-thirds of patients. Alopecia or hair-loss is a pointer in 50 per cent of cases.

If the joints are attacked it may be mistaken for rheumatoid arthritis, when kidneys are involved it may lead to kidney failure. The patient may feel down and depressed, with loss of appetite and weight. There may be a history of migraine and sometimes psychiatric disturbances. They may suffer from fatigue, damaged nails, loss of hair and have painful cold fingers. There may be a slight elevation of temperature. Less common complaints include conjunctivitis (inflammation of the translucent membrane covering exposed portion of eyeball), blurred vision, anaemia, reduced liver and kidney function, chest pain, abdominal pain, indigestion, constipation, depression and convulsion. Among the various manifestations of the disease arthritis is a common link, but unlike other inflammatory arthritis, symptoms may appear during pregnancy. There may also be a history of abortions.

The incidence of the disorder is not clear. One source claims only 1 in 20,000 people may fall to the disorder. Females are affected six to eight times more frequently than males. Another source says the disease occurs more frequently in the Unites States and the Far East. American blacks are particularly susceptible, with a prevalence as high as 1 in 250 among females. Modern tests for antinuclear antibodies suggest that mild and complete cases are more frequent than previously thought.

Specific blood tests can diagnose the condition. The ESR (Erythrocyte Sedimentation Rate) is usually raised. Antinuclear antibodies can be detected in the serum of 90 per cent of patients.

Treatment

Exposure to sun should be avoided. Traditional treatment is with drugs, such as aspirin, non-steroid anti-inflammatory drugs (NSAIDs), corticosteroids, immunosuppressives, antibiotics for secondary infections, and anti-malarials (such as chloroquine, used for their anti-arthritis properties). The kind of treatment depends on the symptoms and the severity of the disease. Some people with mild lupus need no medication; others require treatment only during flare-ups. When the blood is affected plasma pheresis may sometimes be helpful. This is a procedure whereby blood is removed from a vein, centrifuged to separate plasma from cells. Cells with replacement plasma is then re-injected. It takes about 2 hours and is painless. Kidney failure is probably the most severe complication of SLE, and sometimes may require dialysis or, if appropriate kidney transplant. Some of the newer immuno-suppressives have been successful in the treatment of SLE. There is no specific cure for SLE but about 9 out of 10 can expect to live a normal life for 10 years or more. Because SLE tends to reduce the body’s immune system, the sufferer must be wary of any infection, no matter how minor. Many patients have long periods of remission for months on end, before a further relapse. After each attack there is a slightly more residual liver, kidney or heart damage, aggravating the condition.

Nutritional aspects of the disease

Being an auto-immune disorder nutrition aims at strengthening the immune system, and to avoid allergies. The nutritional approach to the disease must be on an experimental basis as applied to each individual. It is important to avoid sugar and to go on a hypoglycemic diet, having small snacks every three hours. Sugar should be replaced with fructose (or other alternative sweeteners) as this seems to stabilize the production of insulin. High levels of insulin suppress growth hormones beneficial to the immune system. Nutritional treatment is similar to polymyositis and dermatomyositis discussed in The Hypoglycemic Health Newsletter, March 1996, page 7.

Animals studies have shown that a low calorie, low fat diet benefits mice with SLE. It has also been suggested that limiting proteins high in phenylalanine and tyrosine found in beef and dairy products may benefit humans as well. In the case of discoid form of lupus there is a case of three patients whose lesions flared up with sun exposure. They were given Beta Carotene, 50 mg 3 times a day, with complete clearance within a week. A low vitamin A diet seems to be related to an increase in IgM autoantibodies and other anti-bodies signifying a heightened immune response in New Zealand Black mice.

Studies have been ambivalent in regard to calcium pantothenate supplementation (6-10 gm daily), but a trial under medical supervision may be worthwhile. Four patients receiving vitamin E, 900-
1600 IU daily showed complete clearing, while 2 patients receiving 300 IU had no benefits. Vitamin E combined with pantothenate and/or selenium have been shown to be helpful. 

Vitamin B12, 1000 mcg, I.M., twice weekly were found to be beneficial to three patients who failed to respond to oral or I.M. vitamin E.

Dietary supplementation of fish oil or omega-3 fatty acids may have a dramatic protective effect on inflammatory disease such as lupus, both delaying the onset of renal disease and prolonging survival. 

Even Primrose Oil with its high GLA content should also be tried.

It was found that SLE patients have decreased serotonin levels, probably due to deficient conversion of tryptophan to serotonin. This may account for the depression. Perhaps this could be due to a B6 deficiency as this coenzyme is required in this conversion (not considered in studies). Tryptophan breakdown products may lead to auto-antibody production and the production of xanthurenic acid (which has been implicated in bladder cancer), hence tryptophan supplementation should be avoided.

Alfalfa ingestion has been associated with aggravated SLE symptoms and should be avoided.

It was found among 63 SLE patients that there was an increased frequency of clinical manifestations of urticaria (skin rash), pharyngitis (Inflammation of throat), conjunctivitis and food allergies compared to patients with other autoimmune diseases and normals. Hence it is important to assess sensitivities to chemical exposures. Reports show that significant remissions developed in SLE patients placed in an environmental control unit and/or following food eliminations and nutritional supplementation.

Some SLE patients may be found to be deficient in hydrochloric acid, a major component of gastric juice, which helps digestion of proteins. This is often associated with deficiency or malabsorption of vitamin B complex. Supplementation with hydrochloric acid plus vitamin B complex resulted in improvement in 9 patients in one experimental study.

German researchers have used an enzymes preparation called “Wobe-Mugos” containing among others bromelain with dramatic results in rheumatoid arthritis, multiple sclerosis and lupus.

Finally, having an autoimmune disorder Lupus patients should undergo tests to ascertain whether heavy metal loads may inactivate enzymes involved in the immune system. Heavy metals such as lead, cadmium and mercury are thought to impair the immune system. One possibility - although subject to considerable controversy - is that amalgam fillings in teeth could leak mercury into the blood system, reach the brain and the nervous system affecting the patient’s overall health.

References

1) Pronounced “lupus er-’e-them’e-tasis”.
2) DLE produces thick, slightly scaly, redened patches on the face, cheeks and forehead. It may spread to the scalp and cause alopecia (hair-loss). Sunlight makes the condition worse. It often disappear during the winter months. Nearly all patients with DLE remain in good health apart from the skin disorder and it rarely develops into SLE.
3) Klinefelter’s syndrome - A condition in which the appearance of external genitalia is either ambiguous or at variance with chromosomal, gonadal, or genetic sex of the individual. Klinefelter’s syndrome in the male is associated with chromosomal abnormalities e.g., XX, XXX, XXYY, XXXY.
4) Harrison’s Principles of Internal Medicine, 1971, page 1962
5) Davidson’s principles and practice of medicine (1984) page 572
6) Chloroquine (Chloroquin, Nivaquin) most serious side effects when used over a long period are eye problems. Opacity of cornes can occur, but resolves when medication is halted. Antacids may reduce absorption of drug. Safe when used during pregnancy and breast feeding. May lead to abnormalities in fetus. Interacts with alcohol and can cause liver damage.
7) Growth hormone (GH) is a polypeptide hormone released by the anterior (frontal) lobe of the pituitary gland in the brain. GH plays a crucial role in growth and repair as well as stimulating the immune system. The GH peaks during sleep especially in young people. Theoretically, more stable blood glucose levels stabilize insulin levels and thereby boost the beneficial effects of growth hormones during sleep. Pearson, D & Shaw, S (1982), Life extension: A practical scientific approach, Warner Books, page 372.
9) Newbold PCH (1976), Brit. J. Dermatol.95:100-101
10) IgM or immunoglobulin M is one of the five humoral antibodies produced by the body and the largest in molecular structure. It is the first immunoglobulin the body produces when challenged by antigens and is found in circulating fluids. IgM triggers the release of immunoglobulin G (IgG) a specialized protein synthesized by the body to attack an invasion of bacteria, fungi and viruses.
11) Gershwin et al. (1984), J. Immunology 133(1):222-26

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Unfortunately, many respondents were not aware of the deficiencies of their own diets, although most had taken in at least part of the nutritional message of the past.

Reference
