A scientific appreciation of the work of Charles de Coti-Marsh

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by the ALSPAC-Arthritic Association Team:
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Charles de Coti-Marsh (CdCM) was years ahead of his time in appreciating the importance of a number of factors that contribute to the causation or the aggravation of the symptoms of arthritis. These factors included diet, spinal injuries, gut sensitivity and the use of supplements. Through his work the Home Treatment Programme was created to enable people with arthritis to manage their symptoms in a proactive, holistic way. The Programme includes guidelines on diet, the use of complementary supplements and remedies, detoxification, and lifestyle changes to help restore vitality, strength and natural movement in the joints.

Perhaps the most important point that CdCM realised is that of the diet being both a causal factor and a possible treatment for disease. His recommendation of a diet rich in natural foods, fruit, vegetables, oily fish and whole grains has been vindicated in research assessing the relationship between diet and disease. Research has shown that diet is an important determinant of chronic disease risk, particularly heart disease, that diet and nutritional supplements may play a role in affecting the incidence of cancer including breast and colon and that omega-3 fatty acids, found mainly in oily fish, may be protective against the development of rheumatoid arthritis.

A substantial amount of money has already been invested in research with particular focus on the causes and associations between diet and cancer. In comparison, however, the causes of arthritis and related diseases have been neglected in the research world. A report prepared by the MRC Human...
acted as a chemical liberator of calcium to disperse and disintegrate calcium formation in the arteries, muscles and joints. He also found it important to eliminate foods within the diet that create unnatural (or inorganic) calcium in the system such as foods that contain lime and chalk.

CdCM’s further insights found that calcification of the joints often resulted from spinal injuries. CdCM reported that an injury within any region of the spine ‘can produce sufficient deviation from normal nerve signals to cause calcification of the joints’. Spinal massage or manipulation at the time of injury or subsequently to alleviate or correct the problem may prevent the later development of arthritis but we, although understanding the theory, have so far found no scientific evidence to support this finding.

The Home Treatment Programme recommends an energy enhancing diet rich in potassium-bearing minerals as well as supplementation with the K compound. Through experimentation with the K atom, CdCM originally formulated this using potassium compounds that he developed into a homeopathic formula. The K compound today

One of CdCM’s key findings and greatest insights was the importance of potassium (K) in relation to conquering arthritis. Potassium is a crucial nutrient that regulates the balance of body acids, plays an important role in neuro-muscular function and is required for carbohydrate and protein metabolism. Deficiency can lead to symptoms of muscle weakness, fatigue, muscle cramps and constipation.

CdCM found that potassium played a vital, regulating role in the elimination of extraneous calcium from the body. The extraneous build up of calcium can harden the arteries, cause kidney stones and, when calcified within the joints, can lead to the presence of arthritis. He found that potassium

Nutrition Research unit on diet and arthritis extensively reviewed the literature published during a 10-year period between 1991 and 2001 in relation to the current knowledge and understanding on the relationships between diet, nutrition, and food groups on the management of arthritis. Their findings suggest that nutritional factors might alter immune and inflammatory responses that might then modify the manifestation of rheumatic disease. Within this period, however, they did not report on any published papers that specifically acknowledged the relationship (either consumed through diet or supplementation) between potassium intake and arthritis.

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is similar to the original formula, containing in combination a total of 6 potassium salts ranging in homeopathic potency from 6x to 10x.

The role of potassium (either through dietary manipulation, mineral or homeopathic supplementation) in relation to the treatment of arthritis has received little attention in disease related nutritional research. However, through a letter published online in the British Medical Journal, Charles E. Weber has brought to light the discovery of an investigation where low cell potassium levels are always present in rheumatoid arthritis. Furthermore, Weber’s own research has led him to the opinion that hypokalemia, or potassium deficiency, must be corrected in states of rheumatoid arthritis.

The opportunity to follow in CdCM’s footsteps with regard to potassium and to take this research further has great potential to make scientific waves. We have started to think about K since reading his ideas and our preliminary investigations have suggested that diets high in modern processed foods are much lower in K than a diet based on fresh, whole foods, with high intakes of fruit and vegetables advocated by CdCM.

Through our own review of the literature we have also found links between potassium and other medical conditions. Maternal prenatal potassium intake has been shown to be independently, inversely related to infant diastolic blood pressure at 6 and 12 months. A higher total body potassium level has been related to greater skeletal muscle mass in children and lumbar spine bone mineral density in children has been positively associated with maternal potassium intake during pregnancy.

Similarly, higher intakes of potassium were associated with greater total bone mass in adults. In addition, an increase in bronchial responsiveness has been associated with higher levels of urinary potassium excretion levels in children and respiratory symptoms have also been shown to be influenced by dietary constituents (bronchitis was positively associated with the sodium-potassium ratio).

The natural, holistic approach adopted by CdCM not only applies to the diet but also includes the use of natural preparations during various stages of the Home Treatment Programme. These are the ‘K’ compound, Energy Plus supplement, Garlic tablets, Deep Seaweed, Detox supplement, Decalcine supplement and homeopathic preparations of Arnica, Rhus-tox and Rutin cream.

Garlic supports the cardiovascular system, helps to reduce the viscosity of the blood, has anti-microbial, and anti-bacterial actions and is important in destroying the Bacillus Coli that CdCM attributes to ‘the cause of catarrh and early rheumatic disorders’. Kelp has a number of concentrated minerals including iodine, potassium, magnesium, calcium and iron and as a source of iodine assists in the production of thyroid hormones which maintain normal metabolism in all cells of the body. It is also useful as a detoxification supplement due to its ability to bind with heavy metals and organic substances.

Arnica and Rhus-tox are amongst a number of commonly used homeopathic remedies for arthritis. Arnica would be indicated for pains that feel stiff, sore, bruised or sprained and Rhus-tox for pains that feel stiff, aching, are worse during cold, damp weather and are better for some movement.

Over-the-counter preparations of complementary and alternative medicines (CAM) are popular for the relief of the symptoms of arthritis, and research has been conducted into their effectiveness.
Kenyon\textsuperscript{19} explored the most effective ways of handling rheumatoid arthritis through acupuncture, food sensitivities and homeopathy and found that complementary approaches are useful in controlling the inflammatory response and subsequent joint destruction, and in controlling the associated pain that accompanies inflammation and joint damage.

Gibson et al compared homeopathy with conventional treatments for the symptoms of rheumatoid arthritis\textsuperscript{20, 21} and found an improvement in pain and a decrease in the need for conventional painkillers. Fisher\textsuperscript{22}, however, conducted a controlled trial of homeopathy for the same condition and found no evidence that homeopathy improves the symptoms of rheumatoid arthritis over 3 months, although Kenyon\textsuperscript{19} stresses that a homeopathic approach to the treatment of rheumatic illness may take many months to work.

A further avenue of research highlighted by the MRC’s report\textsuperscript{5} is that food related antigens might provoke a hypersensitivity response that leads to rheumatological symptoms. We have discovered a potential link with an apparent relationship between nightshades and arthritis. The link suggests that plants in the drug family Solanaceae (or nightshades) are an important causative factor in arthritis in sensitive people.\textsuperscript{23} A hypersensitivity or auto-intoxification response may occur from the build up of cholinesterase inhibiting glycoalkaloids and steroids from the consumption (or use of) plants or substances within the Solanacea food group such as potato, tomato (unripe), aubergine, tobacco, peppers, caffeine and some pesticides and this may give rise to symptoms of inflammation, muscle spasms, pain and stiffness. The article adds that osteo-arthritis could be a result of the long-term consumption and/or use of the Solanaceae, and that dietary adjustments to eliminate these factors have shown a positive improvement in the symptoms of arthritis. The Home Treatment Programme advocates the elimination of tomato, tomato juice and coffee from the diet.

The time is ripe to take forward the legacy of Charles de Coti-March using the latest scientific methods within one of the most important cohort studies in the world. The Avon Longitudinal Study of Parents and Children (ALSPAC)\textsuperscript{24} has followed a cohort of children and their parents since before the birth of the child. ALSPAC has collected a wealth of information from participants about the foods they eat, the aches and pains and arthritis they may have developed and a wide variety of other symptoms, such as constipation etc. The work we have carried out so far looking at overall diet has confirmed that there are a wide range of diets eaten by our subjects in both children and adults\textsuperscript{25–27} – some similar to the dietary lifestyle advocated by CdCM, i.e. increased intake of fruit and vegetables, while others go completely against his advice (a diet high in fat and sugar and increased consumption of processed foods).

ALSPAC’s own investigations (using data collected from the ALSPAC cohort) have shown an association between maternal diet in pregnancy and bone mass in childhood,\textsuperscript{28} and an association
of size at birth and DXA measures of lean and fat mass at age 9–10 years. The Study Team have also extensively published on the subject of foods and drinks consumed, nutritional intake in general, lifestyle habits such as smoking and the use of complementary medicines.

We have the potential to investigate whether the development of arthritis is related to a particular type of diet or use of particular foods/food groups. This will be novel research and has the potential to greatly benefit the health of the nation. Our nutritionist Pauline Emmett is an expert in drawing out and interpreting ALSPAC data on diet and health and is excited about the opportunity to look much more closely at what constitutes a ‘healthy diet’.

Another under-researched area close to CdCM’s heart is the use of complementary and alternative medicines (CAM) through the use of supplements and homeopathic and herbal remedies. ALSPAC has collected valuable information over time about the use of CAMs by the children and their parents. Jackie Bishop, herself a qualified homeopath, founded the ALSPAC-CAM Study Group (comprising researchers expert in the field of CAM research) to capitalise upon this research within the study.

Jean Golding, the founder of ALSPAC, knows the data better than anyone else. She designed the study around the principle that genetics and the environment combine to influence the health and well-being of the whole person. The work of CdCM was very much along these same lines, so ALSPAC has from the beginning, collected the type of data that will enable us to take his work forward. Kate Northstone has been one of the leading statisticians in ALSPAC for many years. She is skilled in the statistical use of the data to give answers to practical problems, and her understanding of the data is second only to Jean Golding.

Our collaboration during the period 2006–2011 will be greatly enhanced by working with the excellent team in place at The Arthritic Association in Eastbourne. Our first meeting with them was very productive and good relationships have been established. We found the work put in by Elizabeth Williams on the summary of CdCM’s life’s work particularly helpful.

We are in a position, therefore, to carry this work forward in line with CdCM’s general philosophy of treating the whole person in a number of important ways. We are very much looking forward to working with The Arthritic Association to take forward the scientific investigation and to provide evidence that will allow the formulation of sound advice that has the potential to improve the health of many individuals.
Bibliography (publications available from The Arthritic Association)

- A Study of Works by Charles de Coti-Marsh: Elizabeth Williams
- Dietary Guidance: Re-energising routine and diet for arthritis and general health
- Home Treatment for Arthritis
- Prescription for Energy
- Rheumatism and Arthritis: The Conquest
- The Marvary Meal
- The Sanocell System
- Treating arthritis naturally: Member's guide

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