

## **HOMEOPATHY – AN ALTERNATIVE TO ANTIBIOTICS?**

### **Current use and misuse of antibiotics.**

After their discovery in the 1940s antibiotics considerably reduced illness and death from infectious diseases that are caused by bacteria. However, over the decades virtually all important bacterial infections throughout the world have been becoming resistant especially due to the increasing and indiscriminate use of powerful, broad-spectrum antibiotics to treat common infections, such as ear infections, and the misuse of antibiotics in situations where they are not appropriate, such as treating viral infections like the common cold.

Tuberculosis, gonorrhoea, malaria, pneumonia, meningitis, and sexually transmitted diseases, that are caused by bacteria were once easily treatable with antibiotics but have now become hard to treat with antibiotic drugs and increasingly deadly due to antibiotic resistance. Antibiotic resistance, which has been called one of the world's most pressing public health problems has led to antibiotic-resistant 'super bugs' causing an estimated 37,000 deaths in the EU each year.

Approximately 50% of Europe's total consumption of antibiotics is by animals. Treatment of food-producing animals – for important therapeutic, disease prevention or production reasons – with antibiotics that are important in human therapy may present a public health risk by the transfer of resistant zoonotic pathogens or resistant genes from animals to humans via consumption of contaminated food. Resistant bacteria can diminish the effectiveness of antibiotics and demand the use of more expensive or less safe alternatives.

Until recently, research and development (R&D) efforts have provided new drugs in time to treat bacteria that became resistant to older antibiotics. That is no longer the case. The potential crisis at hand is the result of a marked decrease in industry R&D, and the increasing prevalence of resistant bacteria. Infectious disease physicians are alarmed by the prospect that effective antibiotics may not be available to treat seriously ill patients in the near future.

The pipeline of new antibiotics is drying up. Major pharmaceutical companies are losing interest in the antibiotics market because these drugs may not be as profitable as drugs that treat chronic (long-term) conditions and lifestyle issues.

### **Combating germs vs reducing susceptibility**

Modern Western medicine started to develop rapidly in the late 19<sup>th</sup> century with the rise of especially the discovery of bacteria as an important cause of disease. Initially there were two opposing views in the germ theory of disease. In Germany it was Robert Koch's ideas (micro-organisms were the 'most dangerous enemies of mankind') versus those of Max von Pettenkofer (poor hygiene as the main culprit). A similar well-known historical argument occurred in France between Louis Pasteur (the microbe as the prime factor) and Claude Bernard (the germ is little, the terrain is all). Eventually Pasteur and Koch's perspectives, focused on combating disease by killing germs prevailed. Doctors were and still are heroes who battle with the forces of disease conceived of invaders from without, alien bacteria, viruses and other microbes that are bent on our destruction.

In reality, infection is always the result of two factors: exposure to a pathogen *and* the person's susceptibility. From this perspective, bacteria and viruses are not the cause of disease but at best are a 'co-factor' to disease. That also means that taking a conventional antibiotic may get rid of the pathogen, but they do not do anything to strengthen a person's immune system. In addition, there is some evidence that antibiotics actually increase the prevalence of allergy and asthma (Noverr, 2004; Johnson, 2005). Johnson demonstrated that children who receive antibiotics within their first six months of life were three times more likely to develop allergies (to pets, ragweed, grass and dust mites), and in case of broad-spectrum antibiotics even 8.9 times more likely to suffer from asthma.

### **Research demonstrating that homeopathy can be effective**

Antibiotics may provide symptomatic treatment, but often persons given these medical treatments tend to experience recurrent infections. By contrast, homeopathic doctors have the experience that many people with infections can be effectively helped by homeopathy and that it is an important way to strengthen people's own immune system.

Scientific research has mainly been conducted in respiratory tract and middle ear infections. Several observational studies consistently show real-world effectiveness of homeopathy. An impressive international study (Riley, et al, 2001) that involved 30 clinicians in 6 clinics in 4 countries enrolled 500 consecutive patients with upper respiratory tract complaints, lower respiratory tract complaints, or ear complaints. The study found 83% of patients receiving homeopathic care experienced improvement, while only 68% of those receiving a conventional medication experienced a similar degree of improvement. The study also found that those people given a homeopathic experienced more rapid relief: 67.3% experienced improvement with homeopathy within 3 days, while only 56.6% of patients given conventional medicines experienced improvement (16.4% of homeopathic patients improved within 24 hours; 5.7% in other group)

Apart from observational studies some more rigorous research projects of the highest scientific standards have been conducted over the last few decades. In several randomized placebo-controlled double-blind clinical trials, involving between 100 and 200 individu-

als each, treatment with commercial complex homeopathic medicines have proven its effectiveness in medical conditions that in conventional practice are treated with antibiotics, such as sinusitis, both acute and chronic, and bronchitis (Friese & Zabalotnyi [2007], Zabalotnyi et al. [2007], Weiser & Clasen [1994], Diefenbach [1997]).

A placebo controlled RCT of homeopathy published in a major pediatric journal (Jacobs et al, 2001) involving 75 children ages 18 months to 6 years with middle ear effusion and ear pain and/or fever for no more than 36, found that there were 19.9% more treatment failures in children given a placebo than those given an individualised homeopathic treatment. The study also found a significant decrease in symptoms at 24 and 64 hours after treatment in favour of those given a homeopathic medicine.

In a study by Frei & Thurneysen (2001) 230 children with acute middle ear infection were treated with individualised homeopathy, 72% were pain-free within 12 hours, a resolution rate that is 2.4 times faster than reported in other series. As acute middle ear infection has a high rate of spontaneous resolution, a trial to prove any treatment-effect has to demonstrate very fast resolution of symptoms. The purpose of this study was to find out how many children with acute middle ear infection are relieved of pain within 12 hours after the beginning of homeopathic treatment, making additional measures unnecessary. 230 children with acute middle ear infection received a first individualized homeopathic medicine in the paediatric office. There were no complications observed in the study group, and compared to conventional treatment the approach was 14% cheaper.

Since sinusitis and bronchitis account for millions of missed workdays each year and acute ear infection is the most common infection for which antibacterial agents are prescribed for children in the Western world, it is clear that homeopathy can play a crucial role in this condition. The economic benefit was also demonstrated by Trichard et al. (2005) who compared two treatment approaches ('homeopathic strategy' vs. 'antibiotic strategy') used in routine medical practice by allopathic and homeopathic GPs in the management of recurrent acute rhinopharyngitis in 499 18-month to 4-year-old children. The GPs using homeopathy had significantly better results in terms of clinical effectiveness, complications, parents' quality of life and time lost from work, for lower cost to social security. GPs who integrated homeopathy in their practice achieved better results for similar cost.

As a conclusion, homeopathic treatment of infections, especially of the respiratory tract, have proven to be effective.

## References

1. World Health Organization (2000) Antibiotic resistance: synthesis of recommendations by expert policy groups. *Alliance for the Prudent Use of Antibiotics WHO/CDS/CSR/DRS/2001/10*
2. Noverr MC, Noggle RM, Toews GB, Huffnagle GB (2004). Role of antibiotics and fungal microbiota in driving pulmonary allergic responses. *Infection and Immunity*, 72:4996-5003.

3. Johnson CC, Ownby DR, Alford SH, Havstad SL, Williams LK, Zoratti EM, Peterson EL, Joseph CL (2005) Antibiotic exposure in early infancy and risk for childhood atopy. *The Journal of allergy and clinical immunology*, 115:1218-1224.
4. Riley D, Fisher M, Sigh B, Haidvogel M, Heger M (2001). Homeopathy and conventional medicine: An outcomes study comparing effectiveness in a primary care setting. *Journal of Alternative and Complementary Medicine*, 7:149–159.
5. Friese K-H, Zabalotnyi DI (2007). Homöopathie bei akuter Rhinosinusitis. Eine doppelblinde, placebo-kontrollierte Studie belegt die Wirksamkeit und Verträglichkeit eines homöopathischen Kombinationsarzneimittels [Homeopathy in acute rhinosinusitis. A double-blind, placebo controlled study shows the efficiency and tolerability of a homeopathic combination remedy]. *HNO*, 55:271–277.
6. Zabolotnyi DI, Kneis KC, Richardson A, Rettenberger R, Heger M, Kaszkin-Bettag M, Heger PW (2007). Efficacy of a complex homeopathic medication (Sinfrontal) in patients with acute maxillary sinusitis: a prospective, randomized, double-blind, placebo-controlled, multicenter clinical trial. *Explore (NY)*, 3:98–109.
7. Weiser M, Clasen B (1994). Randomisierte plazebokontrollierte Doppelblindstudie zur Untersuchung der klinische Wirksamkeit der homöopathischen Euphorbium compositum-Nasentropfen S bei chronischer Sinusitis [Randomized, placebo-controlled, double-blind study of the clinical efficacy of the homeopathic Euphorbium compositum-S nasal spray in cases of chronic sinusitis]. *Forschende Komplementärmedizin*, 1:251–259.
8. Diefenbach M, Schilken J, Steiner G, Becker HJ (1997). Homöopathische Therapie bei Erkrankungen der Atemwege. Auswertung einer klinischen Studie bei 258 Patienten [Homeopathic therapy in respiratory tract diseases. Evaluation of a clinical study in 258 patients]. *Zeitschrift für Allgemeinmedizin*, 73:308–314.
9. Jacobs J, Springer DA, Crothers D (2001). Homeopathic treatment of acute otitis media in children: a preliminary randomized placebo-controlled trial. *Pediatric Infectious Disease Journal*, 20:177–183.
10. Frei H, Thurneysen A (2001). Homeopathy in acute otitis media in children: treatment effect or spontaneous resolution? *Homeopathy*, 90:180–182.
11. Trichard M, Chauferin G, Nicoloyannis N (2005). Pharmacoeconomic comparison between homeopathic and antibiotic treatment strategies in recurrent acute rhinopharyngitis in children. *Homeopathy*, 94:3–9.