HOMOEOPATHIC REMEDIES:THE PHYSICS OF HEALING WITH MICRODOSES

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Hippocrates wrote of curing 'like with like' more than 2,000 years ago but it was formally systematized by the German physician Samuel Hahnemann (1755–1843) in 1796. This implies that substances that cause disorder in healthy people are used as medicines to treat similar symptoms experienced by sick patients. The properties of the chosen medicine should be as similar as possible to the symptoms and signs of the disease, the patient's physical build, personality, temperament and genetic predispositions. The dosage ranges from those that are similar in to some conventional drugs to very high dilutions containing no material trace of the original substance. Vigorous shaking of the solution during the manufacturing process is a key element in the production of homeopathic medicines. One of the leading current proposals for how such high dilutions work is that water is capable of storing information relating to substances with which it has previously been in contact. Recent research on hydrogen bonds in water provides some support for this 'memory' theory. Electron spectroscopy analysis has shown that different homeopathic medicines and different dilutions of the same medicine can be distinguished from each other, even though all should contain nothing but water. As a solution is made more dilute, very stable and larger 'clumps' of material develop in dilute solutions rather than in more concentrated solutions. Only residual molecular clusters of the original substance might just be present in homeopathic dilutions. Of the 106 clinical studies that compared homeopathy to placebo, 77 (72.6%) showed homeopathy to be superior to placebo. Of the 21 remaining studies that compared homeopathy to corresponding allopathic reference drugs, 21 (100%) demonstrated homeopathic medicine was not therapeutically inferior to the corresponding allopathic drug. Thus, it is getting increasingly difficult for physicians and scientists to doubt the benefits that homeopathic medicines offer.

FREE FATTY ACID RECEPTOR-2 ACTIVATE TO PROMOTE EXPERIMENTAL ACUTE AND CHRONIC ILEITIS IN RATS

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Background and aim. Short-chain fatty acids (SCFAs), the most abundant microbial metabolites in the intestine, activate cells via free fatty acid receptor-2 (FFAR2). FFAR2 is highly expressed on immune cells, and several studies suggest that the receptor plays a role in inflammatory bowel disease (IBD). We studied of FFAR2 mRNA expression in the inflamed ileum of rats with experimental ileitis. Materials and methods. Acute ileitis were induced in male Wistar rats (n=15) by one subcutaneous injections of indomethacin (15 mg/kg). Chronic ileitis was induced by two subcutaneous injections of indomethacin (10 mg/kg) were administered 24 hours apart. Expression of FFAR2 mRNA was determined by real-time reverse-transcription polymerase chain reaction with gene-specific primers, using a CFX96™ Real-Time PCR Detection Systems (Bio-Rad Laboratories, Inc., USA). Each sample was tested in triplicate, and results were normalized using amplification of the same cDNAs with rat GAPDH primer. Results are expressed as mean values ± SEM. Results. The expression of FFAR2 was assessed in ileum. Greater expression of FFAR2 predominated during acute ileitis in rats compared to control group (8 ± 2, $P<0.05$). Consistent with the pronounced expression during acute disease, the level of FFAR2 expression was also elevated in rats with chronic ileitis (7 ± 2, $P<0.05$). Conclusion. These results suggest that FFAR2 is essential for initiating intestinal inflammation, may advance our understanding of IBD pathogenesis and that they may be of interest as targets for treatment of inflammatory diseases.