COMMENTARY

What is damaging our tissues and lives?

Mario Ciampolini

Viruses, parasites and bacteria destroy cell and tissues by direct action and indirectly eliciting inflammation. Allergy and insulin resistance worsen and maintain inflammation. Blood glucose (BG) does this directly (?) and provoking unwanted reflexes. Lipids, mainly cholesterol sustain vascular diseases (or only mark damages?). Hypertension signals and contributes to vascular diseases. I prefer to think to a unique final way of damaging: the immune mechanisms of damage. Immune cells and antibodies are predisposed to destroy molecules or structures that are born outside the human body and are demolished in all tissues. These events develop also in the respiratory activity. Absorptive function is so important that is preserved by transferring these immune molecules or structures in all body tissues for elimination. Intestinal mucosa retains the killing function to limit the outside aggression. Killing invading viruses or bacteria marks the start of convalescence. High energy availability and high Blood Glucose (BG) produce a similar state of convalescence and of poor health through reflexes. Digestion becomes slow and immunogenic bacteria increase in number, including immunogenic species. More than half immune body cells reside in intestinal mucosa. These immune cells kill bacteria but do not eliminate biochemical components of bacteria. Antigens spread throughout the body eliciting or increasing local, initial, silent inflammations mainly in vascular sites. The inflammatory settlements produce infarctions and (in the long term) malignances. This insight ceases to be an ac-demicians exercise if we conceive plasma cholesterol as a molecule that often is useful. Cholesterol constitute about half cell membranes. It may signal the unpleasant circumstance of an expanding inflammation and of an active cell proliferation as well as showing an excess lipid or saturated lipids intake. We may wish to have low plasma cholesterol, although diminishing its plasma level by drugs appears to be no more effective than head immersion by a strut. This opinion derives from findings of no decrease of mortality by drug lowering plasma cholesterol. Instead, I always obtained recovery of intestinal and also bronchial disorders after assuming that relapses were due to increased stimulation of bowel mucosa. I eliminated any permanence of nutrients in the bowel by eating suspension until Initial Hunger arousal: this was the powerful factor in recovery. This assumption is useful to spare money in illusory drugs like statins.

Acknowledgements

The Author acknowledges the indispensable collaboration in writing with David Lowel-Smith (NZ) and Riccardo Bianchi (NY), and the strategic, statistical support by Cutberto Garza (Rector, Boston College), Giuliano Parrini (Professor of Physics, Firenze) and Andrea Gionmi (Professor of Statistics, Firenze). Here summarized the researches were supported by the Italian Ministry of University, Research, Science and Technology grants for the years 1998-2002 and by ONLUS Nutrizione e Prevenzione, Firenze, for the years 2003-2012. This review has been shown in: Modifying Eating Behavior: Novel Approaches for Reducing Body Weight, Preventing Weight Regain and Reducing Chronic Disease Risk ASNs Annual Meeting and Scientific Sessions at Experimental Biology 2014, April 26-30. Moreover in Rome 2015, London 2016, Milano 2017.