12° CONGRESS of the EUROPEAN SOCIETY of Gynecology
BARCELONA 18/21 OCTOBER 2017

LOW DOSE ASPIRINE AND WELLAGEING

Ginter S (LU) [1]

Should-we prescribe low-dose aspirin as an anti-aging medication? The multitude of properties of aspirin and the potential of these attributes could they prevent the cellular and functional declines, particularly from inflammatory and oxidative sources, evidenced to contribute to aging ? Aspirin is a widely administered, anti-inflammatory, cheap and antioxidant medication with a variety of positive effects on the immune system and cardiovascular health. It also may affect oxidant production, cytokine responses, and block glycooxidation reactions. Aging is also an interplay between oxidative and inflammatory stress. Could low-dose aspirine help in improving lifespan ?
Aspirin, also known as acetylsalicylic acid (ASA), a medication used to treat pain, fever, and inflammation is also used as a long-term primary and secondary prevention to help prevent heart attacks, strokes, and arterial blood clots. The European Society of Cardiology and the American Heart Association recommend that a primary prevention with low dose acetylsalicylic acid (ASA) is appropriate for all age groups and both sexes in the case of a 10-year risk of heart attacks of over 10%. The daily low-dose aspirin therapy inhibits the platelet aggregation and has also long been used in the secondary prevention of cardiovascular diseases.
Rather new is the discussion about the oncoprotective effectiveness of acetylsalicylic acid (ASA). It may also decrease the risk of certain types of cancer, particularly colorectal cancer. Meta-analyzes by Peter Rothwell of the University of Oxford at Lancet Oncology 2012 show that a multi-year ASS therapy is effective in oncological primary and secondary prevention, in particular the formation of metastasis.The publications also showed a reduction of the distance metastases in adenocarcinomas up to 70 per cent but rather no effect on the local tumor growth. The American study (Aspirin Intake and Survival After Breast Cancer, M.D. Holmes et al., JCO 2010, 29: 1467-1472) also shows a possible risk reduction for breast cancer by half by regular intake of aspirin.
The mechanism of action of ASA is still being discussed: an energy-saving mode is activated in the cells, which inhibits cell growth.
Acetylsalicylic acid (ASS) has an inhibitory effect on the cyclooxygenases, in particular the Cox-2. Interactions between inflammatory processes and tumor recidivities are likely.
Another new interresting factor of regular aspirin use is the possible reduction of non-alcoholic fatty liver disease risks. Aspirin under the condition of primary treated hypertonus is therefore also an additional

[1] Centre de Gynécologie et de Reproduction

weapon for metabolic syndrome, one of the major aging risk in Western Society