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PARTICIPATION OF NEUTROPHIL EXTRACELLULAR TRAPS IN AUTOIMMUNE RHEUMATIC DISEASES

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Neutrophil extracellular traps (NETs) are specific extracellular netlike structures which consist of interlaced nuclear chromatine strands decorated with various molecules of nuclear and cytoplasmatic origin, primarily histones, neutrophilic elastase, cathepsin G, azurocidin, myeloperoxidase, and peptidylarginine deiminase 4 (PAD4). NETs assembling process is now commonly referred as NETosis. It can proceed either with cell death, or in so called vital form, when the cells not only can be viable, but also retain some effector functions. Generation of NETs can be initiated by microorganisms, bacterial wall constituents, antibodies, cytokines, as well as phorbol esthers in vitro. Principal role in NETosis performance is attributed to ROS, especially NADPH oxidase and mitochondrial ROS generation pathways. PAD4 is another critical NETosis enzyme, essential for NET formation. Abundant citrullination of NETs constituents is a mandatory property, which means appearance of citrullinated neoepitopes accessible to immune system as a result of NETosis. NET formation is therefore a phenomenon of particular interest in the search for initiating antigen of anticitrulline autoantibodies in rheumatoid arthritis. Progression of the disease has been demonstrated to be associated with NET markers accumulation. Furthermore, fibroblasts from RA model were revealed to ingest NETs and stimulate production of antibodies to citrullinated histones. A number of NET-associated molecules, including modified dsDNA and histones, are known to be leading autoantigens in systemic lupus erythematosus. Preactivated low-density neutrophils from SLE patients can easier reveal NETosis and outthrow more autoantigens. Multiple studies regarding role of NETs in rheumatoid arthritis, systemic lupus erythematosus, vasculitides, gout, and thrombotic conditions, are under performance, and the information is continuously updated.

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BARRIERS AND EXPECTATIONS FOR PATIENTS IN POSTOSTEOPOROTIC FRACTURES CARE IN FRANCE: THE EFFEL STUDY

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Objective: To quantify the relative importance of barriers to better secondary prevention of osteoporotic fractures and of care expectations expressed by patients with osteoporotic fractures in France. The aim of this poster is to show how economic analysis techniques can be used to quantify the relative value that the patient attaches to the difficulties and facilities he/she has experienced in implementing a personal approach to secondary prevention of osteoporosis.

Methods: A qualitative exploration of potential barriers to care and expectations was undertaken through a systematic literature review and in-depth patients interviews. A list of 21 barriers and 21 expectations were identified. These were presented to 324 subjects with osteoporotic fracture, identified in a representative sample of the French population, in the form of best-worst scaling questionnaires. Patients rated the relative importance of the attributes and arithmetic mean importance scores were calculated and ranked. A Bayesian hierarchical model was also performed in order to generate a relative importance score. Latent class analysis was performed to identify potential subgroups of patients with different response profiles.

Results: Seven barriers were rated as the most important, relating to awareness of osteoporosis and coordination of care. The highest-ranked barrier, "my fracture is not related to osteoporosis", was significantly more important than all the others (mean importance score: 0.45 [95%Cl: 0.33-0.56]. A similar ranking of attributes was obtained with both the arithmetic and the Bayesian approach. For expectations, no clear hierarchy of attributes was identified. Latent class analysis discriminated three classes of respondents with significant differences in response profiles (the educated environmentalists, the unaware, and the victims of the system).

Conclusion: The use of quantitative and qualitative approaches in combination provides a better understanding of research issues than either approach alone. Better quality of care of osteoporosis and effective secondary fracture prevention will require improvements in patient education, training of healthcare professionals and coordination of care. Further research for the sequential valuation of the patient's experience in the delivery of secondary osteoporosis prevention from the patients' perspective is needed.