Abstract

Studies conducted in the last decade demonstrated that neutrophils are able to mediate antiinfectious functions by generating extracellular traps made by chromatin and associated proteins like lysosomal proteases, and cytoplasmic and nuclear proteins. These mesh-like structures are released in response to many different biological agents such as bacteria, fungi and parasites, and they are thought to limit the dissemination of microorganisms by snaring and eliminating them due to the high local concentration of anti-microbial agents. In this review, we describe the progress in our knowledge of the mechanisms that underlie NET generation, their composition and the stimuli able to trigger their release. We also briefly discuss the NETs antiinfectious relevance and their potential involvement in autoimmune responses.

Keywords

Extracellular traps, neutrophils, inflammation, chromatine, lysosomal proteases, cell death.