

P009 Regulation of granulocyte apoptosis by NF- κ B activation
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Apoptosis of granulocytes is a necessary part of the resolution of inflammation where granulocytes play a prominent role. Although the control mechanisms which co-ordinate granulocyte longevity in inflammatory loci are ill-defined, activation of the transcription factor NF- κ B plays a critical role in regulating granulocyte survival. When NF- κ B is inhibited in neutrophils and eosinophils, these granulocytes undergo enhanced onset of apoptosis, particularly in the presence of TNF- α . However, evaluation of the effects of inflammatory mediators determined that the arachidonic acid metabolite PGD₂ was a selective inducer of eosinophil apoptosis, while the sequential metabolites Δ^{12} PGJ₂ and 15-deoxy-PGJ₂ were powerful apoptotic factors for both granulocytes, and overrode the survival effects of factors such as LPS in neutrophils. Although known ligands for PPAR γ , these metabolites inhibited NF- κ B activation independently of this receptor. Thus Δ^{12} PGJ₂ and 15-deoxy-PGJ₂ interfere with NF- κ B activation in granulocytes and may therefore be physiological mediators of granulocyte apoptosis and consequently be involved in the resolution phase of apoptosis.