

P005 Degradation of fibrinogen by CF-related pathogens
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Bacterial proteinases have been implicated in causing necrotic or hemorrhagic tissue damage. We investigated the ability of secreted bacterial proteinases, from two pathogens involved in chronic bacterial infections in cystic fibrosis, to degrade fibrinogen. We found that multiple proteinase species secreted by *Burkholderia cenocepacia* and *Pseudomonas aeruginosa* were able to degrade fibrinogen, and the degradation profile was different from that observed when fibrinogen was incubated with thrombin. Furthermore we investigated the effect incorporation of broad-spectrum and specific proteinase inhibitors would have on the ability of bacterial proteinases to degrade fibrinogen. Treatment of *B. cenocepacia*-fibrinogen co-cultures with the individual inhibitors resulted in a partial inhibition of degradation. However, *P. aeruginosa*-fibrinogen co-cultures showed no differences in degradation profile when inhibitors were used singly. For both cultures total degradation inhibition was observed when the samples were treated with different inhibitor combinations. These results indicate that multiple bacterial proteinase species may play a role in the processes leading to the degradation of fibrinogen, which could impair polymerisation of fibrin, thus contributing to the excessive hemorrhagic tissue damage seen in the late stages of cystic fibrosis lung disease.