19. SUMMARY AND CONCLUSION

Summary

The primary small-vessel systemic vasculitides are disorders that target small blood vessels, inducing vessel wall inflammation, and are associated with the development of Anti-Neutrophil cytoplasmic antibodies (ANCA). Multiple organs are attacked, including the lungs and kidneys. Increasing knowledge of pathogenesis suggest that the antibodies activate neutrophils inappropriately, leading to endothelial and vascular damage. Cytokines, such as tumor necrosis factor, can facilitate damage by priming the neutrophils and activating endothelial cells. Apoptosis of infiltrating neutrophils is also disrupted by anti-Neutrophilic cytoplasmic antibody activation, and removal of these effect cells occur in a pro-inflammatory manner, promoting persistent inflammation.

These ANCA auto-antibodies were first identified by indirect immunofluoescent technique (IFT) and two patterns were observed cytoplasmic-ANCA and perinuclear-ANCA afterwards the specific antigens of these antibodies were determined by various immuno-chemical technique. These antibodies were against the enzymes present in the granules of neutrophils, protinase3 (PR3-ANCA which give rise to cytoplasmic patter by IFT) and myeloperoxidase (MPO-ANCA which give rise to perinuclear pattern by IFT).

It is observed that c-ANCA is; but not always, present in patients of Wegner's granulomatosis while MPO is; but not always, present in patients of Microscopic Polyangiitis.

Thus they can be used as a diagnostic marker for these two diseases.