

5.0 Conclusion

Autoantibodies were detected to bind to adreno-cortical, adreno-medullary and other related steroid hormones (testosterone, progesterone, estradiol).

In eleven NHS, IgG anti-hydrocortisone was detected in all and IgG anti-aldosterone in ten of the sera. For natural IgM, 6 and 8 of the 11 NHS reacted with cortisol and aldosterone respectively. For IgA, only one serum had binding to cortisol but all 11 sera contained natural IgA to aldosterone. There was no detectable natural antibody of any isotype to the adrenal androgen, androstenedione.

For adrenal medullary catecholamines, natural antibodies appear to bind selectively to noradrenaline (NADR) compared with adrenaline (ADR). IgG was reactive in 9 and only 2 of the eleven NHS to NADR and ADR respectively. No natural IgM to ADR was found but two sera had natural IgM to NADR. IgA natural anti-NADR was present in 10 and IgA anti-ADR in only one of the 11 NHS. No antibodies of any isotype were detected to acetylcholine.

The presence of these natural antibodies to cortisol, aldosterone and noradrenaline is of interest as these adrenal hormones are related to blood pressure control: cortisol (vascular sensitivity), aldosterone (sodium/ECF volume), noradrenaline (vascular reactivity).

Perhaps there is an as yet undefined immunophysiologic role of these natural antibodies in mean arterial pressure regulation by modulating the biologic activity of these hormones in the circulation.