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The midgut (MG) epithelium of the vector mosquito is the first tissue barrier encountered by the sexual stages of the malaria parasite. Several antigens in the MG of *Anopheles tessellatus* have been identified and these include glycoproteins. Antibodies against MG tissue of *An. tessellatus*, reduce parasite infection in mosquitoes. The molecular targets for the action of the antibodies are not known.

Anti-MG of antibodies could act by blocking specific ligands on the luminal MG epithelium recognised by the ookinetes. Detailed information on the glycoprotein constituents of the MG of the vector is not available. Therefore MG glycoproteins of *An. tessellatus*, were characterised by lectin binding and gel electrophoresis. MG were dissected from 3-6 day old female sugar-fed *An. tessellatus* and proteins extracted. Binding of glycoproteins to *Helix pomatia* (HP) lectin (specificity: D-GalNAc), wheat germ agglutinin (WGA) (specificity: D-GlcNAc  $\beta$ 1-4 D-GlcNAc) and Concanavalin A (Con A) (specificity:  $\alpha$ -D-mannose and  $\alpha$ -D-glucose) was used to analyse composition of sugar moieties in the oligosaccharide chains of the glycoproteins. MG homogenates were absorbed on to lectin sepharose and glycoproteins eluted with specific sugars. Distinct MG proteins that were separated by electrophoresis and could be silver stained of  $M_r$  between 14 to  $> 205kDa$  were eluted from WGA-sepharose and ConA sepharose. Many glycoproteins were seen with ConA and WGA, but only weak binding seen with HP-sepharose.

In Western blots, lectin binding proteins were probed with peroxidase conjugated ConA and WGA to confirm that the proteins were glycoproteins. Peroxidase labelled ConA produced stronger chemiluminescence bands than peroxidase labelled WGA. The major proteins present in lectin eluates detectable by silver staining were observed to react also with peroxidase-labelled lectins further indicating their glycoprotein nature. Specific binding of WGA and ConA indicates the presence of N-linked core oligosaccharides in many proteins of the midgut; antigenic cross-reactivity between glycoproteins of the midgut epithelium and the peritrophic matrix of *Anopheles tessellatus*.