DETECTION OF PHOSPHOLIPASE A ACTIVITY FROM *CAMPYLOBACTER CONCISUS.*

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Phospholipase A is an integral membrane enzyme which catalysis the hydrolysis of acyl ester bonds of phospholipids. Its activity is regulated by reversible dimerisation using calcium as a cofactor. This enzyme is present in most Gram-negative bacteria and is found to be involved in pathogenesis of some important pathogens such as *Helicobacter pylori* and *Campylobacter coli*, while it is found to be involved in colicin secretion in *E. coli.* Hydrogen-requiring *Campylobacter concisus* is commonly found in the human oral cavity and can be isolated from children with diarrhoea while the pathogenic role for *C. concisus* in gingivitis and gastroenteritis is still under investigation. Phospholipase A activity was quantitatively determined in crude hemolytic extracts (CHE) from clinical and type strains of *C .concisus* isolated from gastroenteritis cases using a commercially designed kit for secretory phospholipase A_2 (plA_2) detection (Assay Designs, Inc.). CHEs in Tris-HCl from selected *C. concisus* strains were assayed for hemolytic activity, lecithinase activity and protein content was estimated before they were used in the assay kit. CHEs from virulent *C. coli* and *C. jejuni* strains were used as positive controls and a crude hemolytic phospholipase C extract from *Clostridium perfringens* was used as a negative control in this assay. More than one unit of plA_2 activity was determined in each microgram of protein content in all *C. concisus* crude hemolytic extracts which was higher than plA_2 activity determined in CHEs from *C. coli* and *C. jejuni* in the same assay, while no plA_2 activity was detected for the plC crude hemolytic extract from *Cl. perfringens.* Detection of higher rates of plA_2 activity in *C .concisus* clinical strains compared to virulent *Campylobacter* strains indicates the possible pathogenic role of *C. concisus* in gingivitis and gastroenteritis.