The Janus Corner

Green Tea in the Treatment of a Congenital Disease and Tumors

I.E.Cock^a,b*

^aBiomedical and Physical Sciences, Nathan Campus, Griffith University, 170 Kessels Rd, Nathan, Brisbane, Queensland 4111, Australia.
^bEnvironmental Futures Centre, Nathan Campus, Griffith University, 170 Kessels Rd, Nathan, Brisbane, Queensland 4111, Australia.

A collaboration between research groups in Philadelphia and Saint Louis has highlighted the potential of the green tea polyphenols epicatechin gallate (ECG) and epigallocatechin gallate (EGCG) in the treatment of the deadly congenital disease hyperinsulinism/hyperammonemia syndrome (HHS).^i Individuals with HHS respond to the consumption of dietary protein by secreting high levels of insulin, resulting in dangerously low blood glucose levels. If left untreated, HHS may lead to death. Recently, HHS has been linked with loss of regulation of the enzyme glutamate dehydrogenase (GDH).^i The US group has shown that oral administration of ECG and EGCG can inhibit GDH, thus blocking HHS. This research also has more wide reaching applications in the treatment of other diseases. For example, it has also been shown that glioblastoma cells require an active GDH to survive,^i indicating the potential of ECG and EGCG as lead products in the treatment of tumors.

REFERENCES


*Correspondence:
Tel.: +61 7 37357637; fax: +61 7 37355282
E-mail address: editor@phcogcommn.org, I.Cock@griffith.edu.au
DOI: 10.5530/pcc.2012.2.13

(c) Copyright 2011 EManuscript Publishing Services, India