

International Journal of Sciences: Basic and Applied Research (IJSBAR)

International Journal of

Sciences:
Basic and Applied
Research

ISSN 2307-4531
(Print & Online)

Published by:
LISSER

ISSN 2307-4531 (Print & Online)

http://gssrr.org/index.php?journal=JournalOfBasicAndApplied

Root/Stem Extracts of *Glycyrrhiza glabra*; As a Medicinal Plant Against Disease Forming Microorganisms

Dissanayake KGC^{a*}, Weerakoon WMTDN^b, Perera WPRT^c

^aDepartment of Cikitsa, Gampaha Wickramarachchi Ayurveda Institute, University of Kelaniya, Yakkala 11870, Sri Lanka

^bDepartment of Chemistry, University of Kelaniya, Dalugama, Kelaniya 11600, Sri Lanka
^cResearch & Publication Division, Gampaha Wickramarachchi Ayurveda Institute, University of Kelaniya,
Yakkala 11870, Sri Lanka

^aEmail: drchithramala@gmail.com ^bEmail: tharindra.weerakoon@gmail.com ^cEmail: ruwantharangaperera@gmail.com

Abstract

Nature is one of the major sources of medicines since the beginning of human civilization. Different counties around the globe have been used different plant materials to overcome varieties of ailments from simple cough to hepatitis to more complexes like SARS and most recently Covid 19. This review is an effort to emphasis the phytochemical and chemical constituents of *G. glabra* and their mechanisms against disease forming microorganisms. This traditional plant which is well known in Sri Lanka as "Welmi" is belongs to family Leguminosae/ Fabaceae. Chemical constituents of *G. glabra* like isoliquiritine, isoflavones, glycyrrhetic acid, saponin and their derivatives have been examined for their pharmacological activities. Most critical chemical compounds which isolated from the root/stem extract of the *G. glabra* are Glycyrrhizin and Glycyrrhetic acid. Glycyrrhizin is a prominent triterpenoid contain in *Glycyrrhiza glabra* which is responsible for the sweet taste of its roots. Glycyrrhizin act as anti-viral compound in two ways. It is able to inhibit the replication process of some RNA viruses such as SARS like corona type virus. Another process is acting as an immunostimulator. It has been used to treat patients suffering from chronic hepatitis C virus and HIV-1 patients owing to its capability of stimulating endogenous viral defense mechanisms.

^{*} Corresponding author.