

Herbal Traditional 2019: Open lable single arm study on Effect of Milk decoction of Liquorice root in Gastro-esophageal Reflux Disease - Dr Rajeshwari P N - Amrita School of Ayurveda, Amritapuri

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Gastro-esophageal reflux disease (GERD) is a chronic disorder related to retrograde flow of gastroduodenal contents into oesophagus or adjacent organs causing troublesome symptoms and complications. It is a highly prevalent condition and has a high impact on quality of life of patient. Reflux symptoms could be caused by oesophageal hypersensitivity as a result of visceral – neural pathway dysfunction. The Cardinal symptoms of GERD are Heart burn and Regurgitation, and other symptoms include nausea, globus sensations and odynophagia. GERD is a clinical manifestation occurring due to the excessive reflux of acidic gastric contents into the esophagus causing varying degree of symptomatic irritation or injury to the esophageal mucosa. Milk decoction of Liquorice root (Yashtimadhu ksheerapaka) is a formulation prepared by processing the milk with Liquorice root. The studies have shown that chemicals in Liquorice root (Yashtimadhu) decreases the swelling of mucous membrane in inflammatory gastric conditions and milk will act as a media and conveyor of medicinal properties to cells. Therapeutic attributes of Liquorice root (Yashtimadhu) buffer the excess acid secretion and will balance the normal physiology. In Ayurvedic literatures antiinflammatory, antiulcer and antiemetic property of Liquorice root (Yashtimadhu) were also discussed. Here is a single group clinical study by 50 patients using milk decoction of Liquorice root (Yashtimadhu ksheerapaka) for a period of 2months. It was Successfull in treating symptoms of GERD and patients experienced reduction in heartburn, regurgitation and nausea.

GERD is typically diagnosed clinically with classic symptoms and response to acid suppression. Heartburn with or without regurgitation is often sufficient to suspect GERD, particularly when these symptoms are worse postprandially or when recumbent. The initiation of treatment with histamine type 2 (H₂) receptor blockers or proton pump inhibitors (PPIs) with subsequent cessation of symptoms is taken into account

diagnostic. In patients who reply to empiric treatment, within the absence of alarm features or symptoms, no further workup is required. Licorice (*Glycyrrhiza glabra*) root contains glycyrrhizin (also called glycyrrhizic acid or glycyrrhizinic acid) and a combination of the potassium and calcium salts of glycyrrhizic acid. Glycyrrhizin is metabolized to the active glycyrrhetic acid within the intestine. Deglycyrrhizinated licorice (DGL) has had glycyrrhizin removed. Licorice may be a purported galactogogue, and is included in some Asian proprietary mixtures to extend milk supply; however, no scientifically valid clinical trials support this use. In fact, licorice usually reduces serum prolactin, which could decrease milk production within the early stages of lactation. Women taking licorice have experienced elevated blood pressure. Galactagogues should never reinstate evaluation as well as counseling on modifiable factors which will influence production of milk. Glycyrrhizin is detectable within the breastmilk of some women taking licorice, but studies measuring glycyrrhetic acid haven't been performed. Licorice has been used safely and effectively together with other herbs given to infants as a tea for the short-term treatment of colic. However, two infants whose mothers had an excessive intake of an herb tea that contained licorice had signs of anethole toxicity. Because both of those papers reported on herbal mixtures, the effect(s) of licorice alone can't be determined. Licorice and licorice extract are "generally recognized as safe" (GRAS) as foods by the U.S. Food and Drug Administration. Long-term, excessive use of licorice can cause hypertension, hypokalemia, and disturbances of adrenal hormones, and thus should probably be avoided during nursing. Dietary supplements don't require extensive pre-marketing approval from the U.S. Food and Drug Administration. Manufacturers are responsible to make sure the protection, but don't need to prove the safety and effectiveness of dietary supplements before they're marketed. Dietary supplements may include various or

multiple ingredients, and variations are often established between actual and labelled ingredients or else their amounts. A manufacturer may contract with an independent organization to verify the standard of a product or its ingredients, but that does not certify the protection or effectiveness of a product. Thanks to the above issues, clinical testing results on one product might not be applicable to other products. The diagnosis of GERD is often made by a mix of clinical symptoms, response to acid suppression, also as objective testing with upper endoscopy and esophageal pH monitoring. As an example, the mix of moderate to severe typical symptoms and endoscopic changes (erosive esophagitis or Barrett's esophagus) are highly specific (97%) for GERD (confirmed with pH testing). However, a well-taken history alone can prove very valuable within the diagnosis, especially within the setting of heartburn and acid regurgitation which have a awfully high specificity (89% and 95%, accordingly), albeit less sensitivity (38% & 6%) for GERD. This will allow one to form a presumptive diagnosis and start empiric therapy, thereby avoiding a comprehensive and expensive evaluation in every patient presenting with uncomplicated symptoms. Additional testing is also necessary, however, for those that don't reply to acid suppression, those that have alarm symptoms (e.g., dysphagia, odynophagia, iron deficiency anemia, weight loss, etc.) and people who have suffered from the disease for an extended period of your time because of concern for Barrett's esophagus. The rationale for pursuing additional testing includes confirmation of GERD also as evaluation of GERD associated complications or alternate diagnoses.

Mulethi, which goes by the scientific name *Glycyrrhiza glabra* comes from the Fabaceae family. The word 'Glycyrrhiza' is derived from the Greek term 'glykos' which means 'sweet' and the term 'rhiza' means 'root' and hence the name given to this plant is 'sweet root'. Licorice is an herbaceous, perennial plant that grows up to a height of 1 metre and is commonly found in the dry, hot, and sunny climates of Southern Europe, Asia, and most Indian regions. The plant has stoloniferous roots and green coloured pinnate leaves with 10-15 leaflets. The flowers of this sweet root plant are purple to whitish-blue and are conch shell-shaped. The plant bears oblong podded fruits that embed several small

seeds. The host of benefits this magic root, come from the buck load of nutrients embedded in it. The array of healthful nutrients includes vitamins, potassium, bioactive constituents like glycyrrhizin, anethole, sterols, tannins, flavonoids, biotin, resins, tannins, sucrose, iodine, saponins, niacin, isoflavones, chalcones, volatile oils, etc. Thanks to the active constituent glycyrrhizin and its powerful adaptogenic, sedative, alexiteric, synergistic properties, the root powder of licorice provides an absolute answer to almost all health anomalies. It supplements the body with an adequate dose of antioxidants which helps one ward off several skin and scalp infections and flaunt a healthy, radiant skin and gorgeous tame.