

Anti-Ulcer Agents in Licorice and Tissue Rebuilding NAG Heal without Side Effects

Accepted Medical Treatment of Ulcers Has Dangerous Side Effects

In recent years, accepted medical treatment of ulcers has focused mainly on the use of antacids and H₂ receptor-antagonists such as cimetidine (Tagamet) and ranitidine (Zantac), which block the production of gastric acid. While these approaches reduce acidity and allow healing of the inflamed or ulcerated area, they deprive the body of the beneficial effects of stomach acid.⁽¹³⁾ As a result:

- Digestion is impaired.^(13,14)
- The body loses its protection against bacteria such as salmonella, shigella and enterotoxigenic E. coli.^(13,14)
- Candida albicans concentrations increase, even in normally sterile portions of the gastrointestinal tract.^(7,14)
- Mucus synthesis and secretion are decreased.^(8,14)
- Microvilli become blunt and sparse.⁽¹⁴⁾
- Enzyme activity of duodenal enterocytes is altered.⁽¹⁴⁾

DGL PLUS™

Deglycyrrhized Licorice Extract with NAG (N-Acetyl-Glucosamine) and Synergists

Product No. 438

Fill Size: 90 Capsules

Two Capsules Contain:

Deglycyrrhized Licorice Extract. 400 mg.
NAG (N-Acetyl-Glucosamine). 60 mg.
Parotid Gland. 10 mg.
Gamma Oryzanol. 50 mg.
Glycine 50 mg.

Other ingredients: glycerol monostearate, gelatin.

Recommended Dosage: Three capsules daily or more.

- Changes in the ultrastructure of gastrointestinal epithelium may occur as well.^(8,14)

Although cimetidine is very effective in healing peptic ulcers, there is a higher relapse rate if maintenance treatment is discontinued than with any other anti-ulcer treatment.

Licorice Stimulates Natural Defense Mechanisms for Treatment and Prevention of Gastric and Duodenal Ulcers

Glycyrrhiza glabra (licorice) has been used for many years as an excellent botanical medicine for treating peptic ulcers. Rather than inhibiting the release of acid as conventional medical treatments do, licorice stimulates the normal defense mechanisms that prevent ulcer formation.⁽⁵⁾

Some of the substances isolated from licorice are of enormous medical interest.⁽¹⁶⁾ Glycyrrhetic acid from licorice, and its derivative carbenoxolone, have been used quite successfully in treating duodenal and gastric ulcers; however, these substances have other medicinal properties which are undesirable in ulcer treatment.⁽⁵⁾

Deglycyrrhization Process Results in Safe and Effective Ulcer Therapy

Due to the known side effects of carbenoxolone and glycyrrhetic acid, a procedure was developed to remove glycyrrhetic acid from licorice. The result, deglycyrrhized licorice (DGL), is a safe and effective preparation for treatment of ulcers. Tests have found DGL to be as effective as carbenoxolone, without the side effects.⁽⁵⁾

DGL has also been shown to be as effective as cimetidine^(1,2) and ranitidine⁽³⁾ for both short term treatment and maintenance therapy of gastric ulcers.

As Effective as Conventional Treatment...

Fewer Relapses...Reverses Drug Side Effects

When the therapeutic effect of DGL was compared to that of antacids, geranylferensylacetate and cimetidine in 874 patients with chronic duodenal ulcers, there was no significant difference in healing rate of the four groups; however, there were fewer relapses in the DGL group.⁽⁴⁾ Because of the high rate of relapse when patients discontinue cimetidine treatment, DGL is recommended as an effective method of "weaning" patients off the drug. When patients are weaned from cimetidine with DGL, the side effects incurred through drug therapy are also gradually eliminated.⁽⁸⁾ The licorice extract has been shown to:

- Enhance the quality of mucus excreted^(5,8)
- Increase the life span of surface epithelial cells^(5,8)
- Increase the number of cells in the mucosal membrane^(5,8)

Gastric ulcers often result from use of alcohol, aspirin or other non-steroidal anti-inflammatory drugs, caffeine and other factors that decrease the integrity of the gastric lining. DGL has been shown to reduce gastric bleeding caused by aspirin, thus, it is strongly indicated for prevention of ulcers in patients requiring long term treatment with ulcerogenic drugs.⁽⁶⁾

(over)

N-Acetyl-Glucosamine (NAG)-Building Block for Cellular Tissue

N-Acetyl-Glucosamine (NAG) belongs to a class of compounds called amino sugars. NAG and other amino sugars are an integral part of cell membranes and the interstitial tissue which holds cells together. Amino sugars and the proteoglycan structures they build are especially important in the intestine because they form the protective mucous layer and cellular cement that regulate intestinal permeability. Research is now focusing on the role of amino sugars in digestive disorders known to be associated with stress, ulcers, Crohn's disease, irritable bowel syndrome, dysbiosis and many other health problems.⁽¹⁰⁾

While most sugars come from dietary sources and are burned for energy, amino sugars are primarily formed within the body and used in manufacturing tissue components. Due to normal wear and tear during body functions, tissues are constantly being broken down and replaced or restructured. Thus, amino sugars are constantly in demand.⁽¹⁰⁾

The body can usually make sufficient amino sugars from glucose; however, under less than ideal conditions, production of amino sugars and their assembly into larger molecules may be impaired. Using NAG as a supplement eliminates many steps and increases tissue building properties.⁽¹⁰⁾

Licorice and NAG - Other Benefits

The National Cancer Institute (NCI) has developed a \$20.5 million program to study phyto-chemicals that are linked to cancer prevention and are found in some common foods. Licorice is high on the list of foods to be studied.⁽¹⁵⁾ It has been used in China for at least 3,000 years for the treatment of peptic ulcers, sore throats, coughs and boils. It has also been found beneficial in the treatment of Addison's disease.⁽⁹⁾

NAG is important in the synthesis of structural proteins, lubricants and protective agents, transport molecules/ligands, immunological molecules, hor-

mones, enzymes and cellular binding differentiation and recognition. Its role in the repair of mucous membranes, would indicate NAG for asthma, food and respiratory allergies, vaginitis and candidiasis. Since NAG is involved in the synthesis of collagen and bone matrix, it would also be indicated for tendinitis, bursitis, osteoporosis and various skin problems. Because of its role in the production of immunological substances, NAG could help prevent immune related disorders.

Improvement Seen in 85%-90% Treated with Gamma Oryzanol

Clinical studies show that orally administered gamma oryzanol, an extract of rice bran oil, is effective in treating a broad range of gastrointestinal disorders including stress-induced gastric and duodenal ulcers. In a review of 23 research studies, therapeutic improvement was seen in 85 to 90 percent of the cases.⁽¹²⁾ Gamma oryzanol is also listed in the Merck Index as an anti-ulcerative agent.⁽¹¹⁾

Parotid Provides Salivary Factors

Parotid gland concentrate is added to the DGL Plus formula to provide salivary factors which aid in breakdown of the licorice in the stomach. Results of one trial indicated that, in order to be effective, DGL should be chewed or mixed with saliva to facilitate its breakdown and absorption in the stomach rather than lower down in the digestive tract.⁽¹⁾ Due to the strong taste of some of the ingredients in DGL Plus, patient compliance would suffer if the formula had to be chewed. Parotid concentrate is an effectively replaces the salivary factors contributed by chewing.

WARNING: This information is provided for health care professionals only. **This publication and the product contained herein have not been approved or evaluated by the Food and Drug Administration. This publication, and the product contained herein are not intended to diagnose, treat, cure or prevent any disease.** The product relates to nutritional support only.

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