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DEN2315 Pharmacology

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Turmeric

The natural product commonly known as turmeric, turmeric root, Indian saffron, haldi, scientifically known as *Curcuma longa*, medically known Curcumin or Jiang Huang, is said to have pharmacological activities such as antioxidants, anti-inflammatory, hepatoprotective, antiplatelet aggregation, antimutagenic, and antimicrobial [1]. Other therapeutic applications of turmeric includes improving brain functions, lower risk of heart disease, prevent cancer, preventing and treating Alzheimer's disease, treats arthritis, treats depression, anti-aging [2]; local effects, gastric effects, chronic anterior uveitis, dental pain, periodontal problems, mouth wash, subgingival irrigant, pit and fissure sealant [1].

Turmeric are most commonly available in powder form, as tea, and as sliced turmeric roots. It can be "used as a stimulant and carminative" [3], "coloring and flavoring agent in many Asian cuisines, especially for curries, as well as for dyeing [4]. It is also used in Chinese and Indian medicine. They originated in Southeast Asia, mainly from India and Indonesia. Now they can be found in China, "India, Sri Lanka, East Indies, Fiji, and Australia" [5].

A large number of studies done on turmeric to studied the anti-inflammatory properties. Earlier studies done "in mice, curcumin inhibited edema at doses between 50-200 mg/kg. A 50-percent reduction in edema was achieved with a dose of 48 mg/kg body weight, with curcumin nearly as effective as cortisone and phenylbutazone at similar doses" [6]. These studies indicated that turmeric does have anti-inflammatory properties and are just as effective as certain drugs that are used to treat anti-inflammation. There are no drug interactions, "rare cases of contact

dermatitis and anaphylaxis,” and the contraindications are to “avoid use if hypertensive,” “avoid use during pregnancy and lactation due to emmenagogue and uterine stimulant effects.” “The herb should not be used in patients with gall stones or bile duct or passage obstruction” [3].

There are no oral manifestations.

Ibuprofen, phenylbutazone, cortisone can treat anti-inflammatory and can be compared to the efficacy of turmeric. Consumers are attracted to the natural healing powers of turmeric. Curcumin originated as a plant, it is natural, and it is easily accessible. With targeted marketing, recommendations from friends/family that have used turmeric to replace prescribed drugs and claims about the quality of the natural healing powers consumers would certainly be willing to try it.

As a health educator, it is important to know some information about certain natural products, especially the ones that affects our field. It is important to know the dosage, the contraindications, the adverse reactions, and the effects on dental treatment. Information on these natural products can be verified through the drug information handbook and herb guides.

We should ask why our patients are taking this product. Are they taking it for health reasons or because it is a trendy herbal supplement to take? After understanding why the patient is taking turmeric, I can explain to them that taking high doses of it can affect the gastrointestinal and in a dental setting they may experience “increased bleeding due to inhibition of platelet aggregation” [3].

After evaluating the information the patient provides, I would look up the natural product for any contraindications and adverse reactions. If I do not see any indications that would negate the treatment, then I will not stop the patient from using turmeric. Also, with claims that turmeric

helps with anti-inflammatory, I would suggest to a patient who has slight gingival inflammation to use turmeric to rinse their mouth for a few days.

Picture 1: Naturally fresh turmeric



Picture 2: Powder turmeric



Work Cited

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Picutre Citation

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