

Methods and Materials

1 – Soft bee wax.



2- Knead the wax soften on powdered sugar for sugar free knead it on corn flour.



3- Now add proanthocyanidins extract and knead it all.



4- Flattening and cutting



5- Sun dry it.



6- Wrap in little wax paper wrappers or put into zip lock bags.

Results

Proanthocyanidins are known to have free radical scavenging, antioxidant, anti-cancer, and anti-inflammatory, antiviral and perhaps nerve tissue protective properties. Hence our Persimmodol chew gum are beneficial for the treatment of headache and migraine.

Headaches

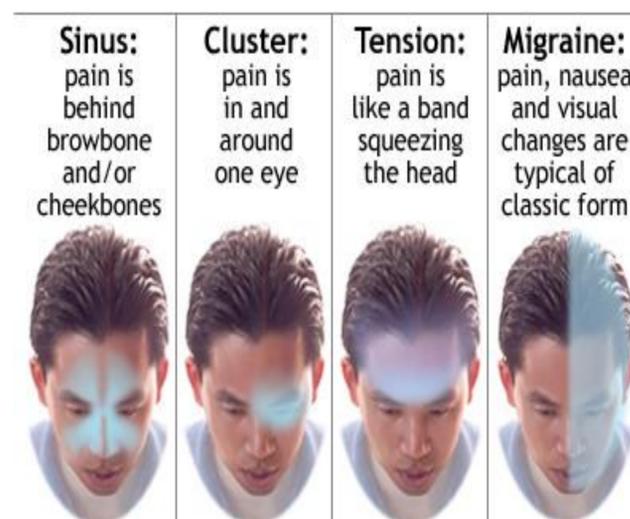


Figure 1. Types of headaches.

Discussion

In this research we developed a chew gum (persimmodol) square for headaches and cephalalgia patients assess pleasant tasting and powerful medication. Proanthocyanidins square measure a group of biologically active flavonoids found in the Plantae kingdom as a main ingredient, and square measure one of the most effective strong inhibitors in nature. Cephalic arteries and intracranial extra cerebral arteries are affected by dilation and inflammation of cephalic arteries and intracranial additional cerebral arteries cause the cephalalgia headache The active ingredient in the treatment of headaches and migraines is chemical-containing proanthocyanidin, which belongs to oligomeric flavonoids, full of proanthocyanidine is 540.2 ce/100g in persimmon leaves, which are legendary for having radical defensive properties of scavenging, antioxidant, anti-cancer, and anti-inflammatory, antiviral and maybe animal tissue.

Conclusions

From this research it is confirmed that the leaves extract of persimmon has a positive effect on headaches and cephalalgia. Main ingredient of leaves extract for the treatment of headaches and cephalalgia is proanthocyanidins square. Recent animal studies, as in some human studies, have shown that proanthocyanidin extracts have a wide range of defensive biological, pharmacological and chemical properties against free radicals and cephalalgia and headaches healing from aerobic stress. By direct molecular scavenging and by modulating various downstream signal pathways relevant to stress responses, proanthocyanidin can effectively resist aerobic stress-induced damage and increase cellular inhibitor potential and then decrease the headache.



Figure 2. Persimmon chew gum (persimmodol). Figure 3. headache.

References:-

1. Chemistry and Functionality of Bioactive Compounds Present in Persimmon Academic Editor: Volker Böhm
- 2- Proanthocyanidin biosynthesis of persimmon (*Diospyros kaki* Thunb.) fruit *Scientia Horticulturae*
- 3- Extraction and Characterization of Proanthocyanidins Sean X. Liu*,¹ and Elizabeth White²
- 4- Persimmon leaf and seed powders could enhance nutritional value *AFRICAN_JOURNAL_OF BIOTECHNOLOGY*
- 5- Effect of pre-treatment and extraction conditions on the antioxidant properties of persimmon (*Diospyros kaki*) leaves *Journal of Bioscience, Biotechnology, and Biochemistry*