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JOURNAL OF FOOD AND DRUG RESEARCH

Story of Gum Arabic (Acacia senegal), past, present and future

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ABSTRACT

Plant gum exudates have been exploited for several thousand years and still have a wide variety of practical applicationsparticularly in the food industry, in which they are commonly used as food additives. Gum Arabic (GA) is derived from exudates of Acacia senegal or Acacia seyal trees. Acacia is known as a good source of dietary fiber because it contains about 90 percent soluble fiber, is an important part of the diet. The Food and Drug Administration (FDA) have approved Acacia as an additive in foods and drugs. Currently, the principal source of GA is the Kordofan province of Sudan which produces over 80% of the world's supply. Recent animal and clinical studies shed some light into mechanisms involved in the therapeutic action of GA and it may be useful in the prophylaxis and treatment of obesity, diabetes, colon carcinoma, inflammatory disease and malaria.

The objective of the oral presentation is to provide a broad overview of the research data uncovering the biological effects of GA and to highlight possible avenues for future research.

- Gum Arabic counteracts carbohydrate induced obesity, hyperglycemia and hyperinsulinism

- Gum arabic counteracts intestinal inflammation and tumor growth

- Gum Arabic gum possibly enhances bone mineralization

BIOGRAPHY

Omaima Nasir has completed her Ph.D from Khartoum University, Sudan with a joint program scholarship from DAAD, Germany and postdoctoral studies from Tuebingen University, Germany. She has teaching experience of more than 15 years in Basic Sciences. She has been working an Associate Professor of physiology in Taif University. She holds an international patent on effect of Gum Arabic with more than 32 papers published in reputed journals and now she is a group research leader working in different scientific fields in taif University.

PUBLICATIONS

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- Nasir Omaima, et.al Downregulation of angiogenin transcript levels and inhibition of colonic carcinoma by gum arabic (Acacia senegal).Nutr Cancer. 2010;62(6):802-10.PMID:20661830 [PubMed - indexed for MEDLINE].
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Abstract Citation: Omaima Nasir, Story of Gum Arabic (Acacia senegal), past, present and future, Food science 2020, 4th Global Summit on Food science and Healthcare Nutrition, Zurich, March 11-12, 2020, pp.6