

Chamomile Tea Potentials in Prevention and Amelioration of Type 2 Diabetes Mellitus

Mina T Kelleni*

Department of Pharmacology, Faculty of Medicine, Minia University, Egypt

Commentary

A recent randomized controlled trial has confirmed many previous animal studies suggesting chamomile tea to contribute to the prevention of the progress of hyperglycemia and diabetic complications. In this commentary, a concise review of chamomile tea and its relationship with type 2 diabetes mellitus is provided.

Matricaria (Chamomilla) recutita L, known as "chamomile", has been used as an herbal tea or supplementary food all over the world. It has a long history of being used as a medicinal plant due to many health benefits, including anti-inflammatory, anticancer, antispasmodic, radical-scavenging effects and others [1]. Moreover, chamomile extract was shown to have a potent antidiarrheal and antioxidant properties in rats confirming their use in traditional medicine [2]. In 2008, Khan and colleagues indicated that chamomile tea possesses a glucose lowering effect in diabetic rats, other researchers confirmed the ability of chamomile to progressively reduce the fasting and post prandial blood sugar levels as well as lowering the level of hemoglobin A1c (HbA1c) significantly suggesting a possible potential in type 2 diabetes management and recommending its daily consumption as a potentially useful tool in hyperglycemia control [3,4]. One of the documented antioxidants isolated from chamomile tea is luteolin; a flavone found also in celery, green pepper, perilla leaf and has been reported to possess antimutagenic, antitumorigenic, antioxidant, and anti-inflammatory properties [4,5]. Other documented chamomile antioxidant extracts include apigenin, umbelliferone, esculetin and quercetin. Some of these extracts were shown to inhibit the accumulation of sorbitol in human erythrocytes as well as to significantly suppress the blood glucose levels in streptozotocin-induced rat diabetes model and it was suggested that daily consumption of chamomile tea with meals could contribute to the prevention of the progress of hyperglycemia and diabetic complications [3].

Further, Fitzenberger and colleagues have shown that extracts made from chamomile, ginseng, lime blossom, paraguay tea, balm, rhodiola, black tea, or knotgrass all significantly extended the lifespan and ameliorated the glucose-induced reduction of survival in nematodes [6]. Further, researchers from Tabriz University of medical sciences have shown that type 2 diabetes mellitus patients consuming chamomile tea three times per day immediately after meals for eight weeks has beneficial effects on glycemic control significantly

reducing HbA1c as well as significantly increasing total antioxidant capacity compared to a group of patients drinking water only and concluded that chamomile tea could be useful in reducing diabetes risk factors [7]. Interestingly, the same group of researchers added in another publication of the same research that consuming chamomile tea can significantly improve serum lipid profile in T2DM patients [8].

I believe that waiting seven years was too long to confirm the preliminary positive data regarding the antidiabetic effects of chamomile tea in rats published in 2008 with a randomized controlled trial and I do agree with all the researchers who asked for more clinical trials including larger numbers of volunteers to explore more about the protective and/or ameliorative effect of this widely used cheap herbal extract wishing to announce a global recommendation to use it as a daily routine healthy habit before the lapse of seven more years.

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*Corresponding author: Mina T Kelleni, Department of Pharmacology, Faculty of Medicine, Minia University, Egypt, Tel: +201200382422; E-mail: drthabetpharm@yahoo.com

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