

Review Article

Therapeutic benefits of prophetic medicine remedies in treating hematological diseases (A review article)

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Abstract: Hematological disorders are common medical ailments constituting an important cause of morbidity and mortality worldwide, which may be managed efficiently using different prophetic medicine remedies as adjuvants to current therapeutics. Prophetic medicine includes the body of knowledge about medicine that has been derived from the deeds, customs (sunnah), ahadith (sayings), actions, and agreements of Prophet Muhammad, peace be upon him. This review article aims at exploring the magnitude of therapeutic benefits of prophetic medicine remedies as adjuvant treatments to many different types of hematological disorders. Herein, we reviewed many published research studies throughout the literature to delineate the potential therapeutic benefits of prophetic remedies on hematological disorders. Several types of hematological disorders may benefit from prophetic medicine remedies that are rich in natural antioxidants that combat oxidative stress-induced harm e.g. nigella sativa, oral honey, camel milk and urine, Ajwa date fruits, olive oil, Zamzam water and figs. Many prophetic medicine remedies were reported to decrease the hematological cytotoxicity effects induced by different chemicals and are beneficial in treating anemias e.g. iron deficiency anemia, sickle cell anemia, thalassemia, coagulopathies and hematological malignancies as leukemia and myeloma. These remedies treat or alleviate the different hematological disorders using different mechanisms e.g. modulating the immune function, treating deficiencies of different substances, protecting against toxins-induced cytotoxicity, decreasing platelets aggregation, suppressing clotting factors activation, exerting antineoplastic effects (enhancing cancer cells cytotoxicity) and inhibiting angiogenesis. Prophetic medicine remedies exert clinically significant therapeutic benefits for treating COVID-19 pandemic, anemia, thrombosis, thalassemia and blood cancers without inducing toxicity or side effects.

Keywords: Prophetic medicine, haematological disorders, nigella sativa, Al-hijamah, Zamzam water, figs

Introduction

Prophetic medicine is the medical knowledge gained from sayings, teachings and deeds of Prophet Muhammad peace be upon him. Remedies of prophetic medicine include minor surgery (Al-hijamah, wet cupping therapy), many medicinal plants, natural drinks and

foods recommended by Prophet Muhammad peace be upon him for their beneficial effects to health, disease prevention and treatment. Both therapeutic and preventive aspects are present in prophetic medicine. All therapies from prophetic medicine are natural antioxidants, including Al-hijamah (prophetic medicine's wet cupping therapy), which works by

clearing the body of harmful pathological chemicals by excreting excess oxidants. The medical literature is currently fertile ground for innovative studies on the subject of prophetic medical cures. Recently, prophetic medicine remedies had been reported as adjuvant or holistic treatments to many human ailments including viral hepatitis [1], trauma [2], drug poisoning [3] and other diseases e.g. thalassemia [4, 5]. These remedies also include *nigella sativa*, olive oil, Ajwa dates and many other types of foods [6]. Medical knowledge gained from religious texts should not be ignored as it has a spiritual aspect and concentrates more on natural products that are available, cheap and gain public trust. The Qur'an, prophetic traditions and sayings of the lovely Prophet Muhammad peace be upon him are religious, spiritual, scientific and influence the medical and anatomical texts [7]. The purpose and treatment methodologies of the prophetic medicine remedies are quite diverse and expand to include treating so many diseases in different medical specialties e.g. Al-hijamah was reported to treat autoimmune diseases, cancer, hematological conditions, chest diseases, gastrointestinal diseases and others [8].

In this review article, the authors shed light on the therapeutic benefits of prophetic medicine remedies for treating blood disorders. Hematological diseases include disorders in the structure, function or number of erythrocytes, leukocytes, thrombocytes, clotting factors and other blood components. Anemia affects 1.62 billion people worldwide (about 24.8% of the world population) [9]. Moreover, leukemia (a hematological malignancy) has an incidence of 10.5/100,000 with a male to female ratio of 1.4 in the United States and Canada. Thrombotic disorders include venous thromboembolism (VTE), ischemic heart diseases and stroke. The incidence of VTE ranges from 0.75 to 2.69 per 1000 in Western Europe, North America, Australia and Latin America. Genetic factors are one of the most common causes of hematological disorders while other environmental and nutritional causes may be present. Besides, hematological diseases may predispose to many infections which subsequently cause significant morbidity [10]. Unfortunately, not so many studies are there to investigate the therapeutic effects of prophetic medicine remedies in preventing and treating hematological disorders.

To the authors, prophetic medicine remedies should be highly considered as adjuvant treatments because they are natural, antioxidants, and quite safe having no side effects or drug interactions in addition to their high ability to mitigate disease symptoms and help curing diseases. Given the fact that several currently used drugs for treating different hematological diseases have serious and intolerable side effects, prophetic medicine remedies are quite promising and well-tolerated. Al-hijamah had proved so promising for treating different diseases differing in etiology and pathogenesis owing to its ability to excrete causative pathological substances outside the human body according to the evidence-based Taibah mechanism (Taibah theory) [11, 12]. Al-hijamah also proved effective in treating many hematological disease as thalassemia and conditions of hyperferremia [4, 13, 14]. *Nigella sativa* also proved effective in treating thalassemia as we will discuss in this review article [5]. Studies regarding these remedies are expanding day by day and they are remarkably interesting. Being valid and up to date, prophetic medicine remedies recommended by Prophet Muhammad peace be upon him still provide so many therapeutic benefits that recommend their use as adjuvants for treating many ailments e.g. hematological diseases [15].

Therapeutic benefits of *nigella sativa* for treating some hematological disorders

Nigella sativa is one of the medicinal plants strongly recommended by lovely Prophet Muhammad peace be upon him (**Figure 1A**). *Nigella sativa* exerts many promising hematological benefits in treating many blood diseases. *Nigella sativa* caused promising therapeutic benefits in treating hemolytic anemia, due to its ability to increase the blood hemoglobin levels. *Nigella sativa* increased hemoglobin level, leukocytes count, CD4 count, CD8 count, antioxidants levels and suppressed oxidative stress and related harm in thalassemic children [5]. Furthermore, the effects of *nigella sativa* oil on ameliorating the hematotoxic effects of fungicides have been demonstrated in rats, showing promising results in diminishing fungicides-induced macrocytic hypochromic anemia, leukocytosis, lymphocytosis, eosinophilia, and neutropenia [16]. *Nigella sativa*'s fixed oil was reported to have an anti-sickling activity with an approximately 80% reduction of sickle cells formation [17].

Prophetic medicine remedies help treating haematological diseases

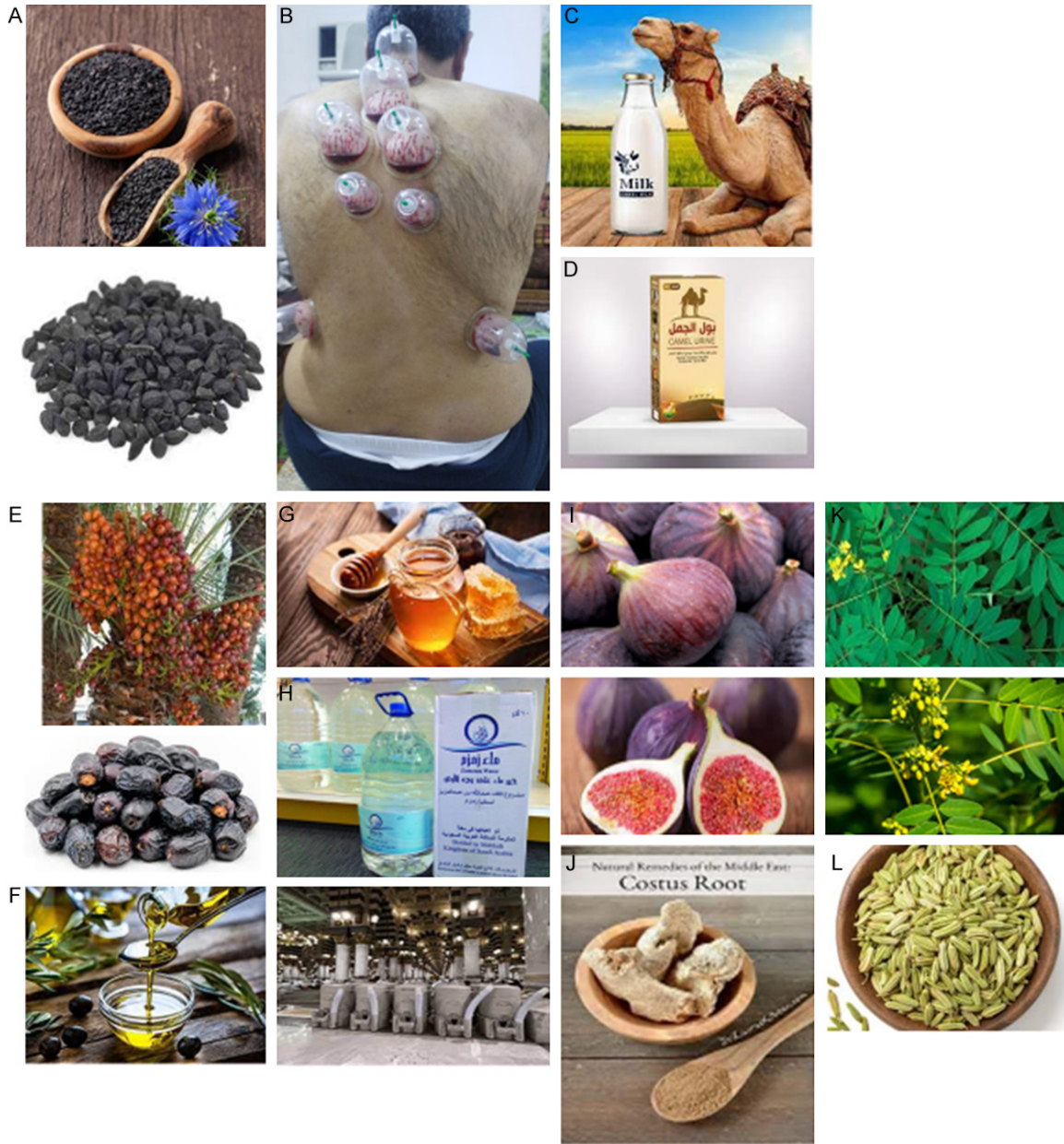


Figure 1. Prophetic medicine remedies that have some reported health benefits are mostly foods and drinks. All prophetic medicine remedies are natural products containing antioxidants. A. *Nigella sativa*; B. Al-hijamah (wet cupping therapy of prophetic medicine); C. Camel milk; D. Camel urine; E. Ajwa date fruit; F. Olive oil; G. Natural honey; H. Zamzam water; I. Figs; J. *Costus speciosus*; K. Senna (*Cassia Angustifolia*); L. Fennel (*Foeniculum vulgare* Mill).

Nigella sativa was effective in modulating the immune functions as it increases the white blood cells count and neutrophils and enhances cell-mediated immunity by increasing CD4 counts and CD8 counts. *Nigella sativa* was also effective in treating thalassemia via potentiating the effects of iron chelation therapy and alleviating its side effects [5]. White blood cell, neutrophil, CD4 T helper, and CD8 T-cytotoxic

cell counts were all raised by *nigella sativa*. While CD8 cells eliminate virus-infected cells, CD4 cells coordinate the body's immune response to viruses (the cellular machinery helping viral replication). Additionally, we found that *nigella sativa* greatly reduced oxidative stress (and the tissue damage it causes) while boosting overall antioxidant capacity (tissue-protective effects) [5]. *Nigella sativa* is an intriguing

plant as it is rich in copper [18]. Important immune cells such T helper cells, B cells, neutrophils, natural killer cells, and macrophages that have strong antiviral immunological effects depend on copper for their proper function. Due to the diminished quantity and functionality of these blood cells, people with copper deficiencies are more susceptible to infections. Many infectious viruses, including poliovirus, bronchitis virus, and type 1 human immunodeficiency virus, were sensitive to copper [19]. Within a few minutes for simulated fingertip contamination, human coronaviruses were quickly rendered inactive on a variety of copper alloys, and copper/zinc brasses were highly effective at lower copper concentrations [20]. More intriguingly, in *in vitro* cultures, *nigella sativa* significantly reduced coronavirus reproduction by over 90%, while *anthemis hyalina* completely inhibited coronavirus replication [21].

Nigella sativa has potent anticancer effects. That was firstly discovered by the Arabic scholar Avicenna about 1000 years ago (in 428 Hijri). Thymoquinone is the major component and active ingredient of *nigella sativa*. Thymoquinone has showed significant protective results in treating human leukemia cells by increasing the killing of neoplastic cells and arresting the progress of their genetic alterations [22]. Thymoquinone also plays an important role in augmenting the immunological effects of natural killer cells against leukemia cells via maximizing the toxicity against WEHI-3 leukemia cell line [23]. Another study confirmed the evidence of thymoquinone-induced therapeutic benefits in treating acute lymphoblastic leukemia where thymoquinone caused mitochondrial dysfunction in leukemic cells which therefore induces apoptosis via different apoptotic pathways [24]. Regarding myeloblastic leukemia, thymoquinone exerted beneficial therapeutic effects against the myeloblastic leukemia cell line HL-60. Thymoquinone-induced apoptosis may take place by disrupting the mitochondrial membrane as well as through activating several apoptotic pathways [25].

Nigella sativa was also reported to play a role in maintaining the balance of thrombus formation and fibrinolytic effects by altering the endothelial potential of fibrinolysis [26]. Moreover, different extracts of *nigella sativa* had demonstrated a significant therapeutic effect against

malaria-induced hematological effects. *Nigella sativa* suppressed the high malaria-induced severe parasitemia and caused packed cell volume reduction. However, some malarial phenotypes have been shown to be *nigella sativa*-resistant phenotypes and showed delayed parasitic clearance [27]. Another important component in *nigella sativa* is the herbal melanin (a dark pigment extracted from the seed coat of *nigella sativa*), that proved effective in treating human acute monocytic leukemia cells via inhibiting their proliferation by different mechanisms [28]. Additionally, *nigella sativa* showed a significant therapeutic potential on lymphoma cells via triggering p53-induced apoptosis [29]. Thymoquinone also proved effective for treating multiple myeloma via several mechanisms as decreasing F-actin polymerization and the proliferation of human multiple myeloma cells by suppressing STAT3 phosphorylation and Bcl2/Bcl-XL expression [30].

Thymoquinone also exerts potent anti-inflammatory and immunomodulatory actions. Bacterial toxins e.g., lipopolysaccharides are known to enhance dendritic cells maturation and cytokines release. Interestingly, lipopolysaccharides increased the percentage of CD11c(+) CD86(+), CD11c(+)MHCII(+), CD11c(+)CD40(+) and CD11c(+)CD54(+) cells and stimulated the release of IL-10, IL-12p70 and TNF-alpha. These effects were blunted by thymoquinone in a concentration-dependent manner (1-20 micromoles). Moreover, lipopolysaccharides decreased while thymoquinone increased apoptosis as evidenced by caspase 3 and caspase 8 activation and annexin V binding. Moreover, lipopolysaccharides-induced phosphorylation of the prosurvival kinases Akt and ERK1/2 was abrogated by thymoquinone. This means that thymoquinone compromises the maturation, cytokines release and survival of the dendritic cells [31]. Moreover, thymoquinone inhibited lipopolysaccharides-induced Na⁺/H⁺ exchanger activity, cell swelling, oxidative burst, cytokines release, and migration of murine dendritic cells generated from the bone marrow. Inhibition of the Na⁺/H⁺ exchanger may thus contribute to thymoquinone-induced anti-inflammatory properties [32]. Additionally, thymoquinone possesses anti-inflammatory characteristics and prevented the manufacture of essential mediators in inflammatory processes and asthma e.g., 5-lipoxygenase, cyclo-

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oxygenase, prostaglandin D2, and leukotrienes. Moreover, lipopolysaccharides-induced proinflammatory cytokines such as interleukins and tumor necrosis factor- α (TNF- α) were also decreased [32]. Thymoquinone also exerts immunomodulatory effects on the cellular and humoral immunity. Thymoquinone decreased imidacloprid toxicity by reducing oxidative stress and boosting chemokinesis, chemotaxis, phagocytic activity, antibody levels, and immunoglobulin hemagglutination, as well as lowering serum malondialdehyde levels (harmful oxidants) and liver enzymes. However, well-designed clinical trials in humans are needed to confirm these findings [33]. Another molecular docking study has also shown that *nigella sativa* slowed COVID-19 virus replication, suggesting that it might provide the same or better outcomes than many FDA-approved medicines. *Nigella sativa* can be a potential influencer in strengthening the immune response on molecular grounds [34].

Therapeutic benefits of Al-hijamah on some hematological disorders

Al-hijamah is Arabic wet cupping therapy (wet cupping therapy of prophetic medicine) (Figure 1B) that is used in the management of several diseases. Al-hijamah is highly recommended by Prophet Muhammad peace be upon him for treating a large number of diseases where its evidence-based scientific principles and mechanisms were suggested by Taibah theory. Although the effects of Al-hijamah in alleviating the symptoms of hematological disorders have not been widely studied, its efficacy and safety have been evident in some studies. Al-hijamah showed promising results in treating patients with high iron levels who are at a great risk of developing iron overload-induced tissue damage. Al-hijamah demonstrated a great ability to reduce serum ferritin, reduce oxidative stress, potentiate the effects of iron chelation therapy and augment the total antioxidant capacity in thalassemic children. Thus, Al-hijamah can be considered as a good complementary therapy for treating iron overload in patients suffering from thalassemia, hemochromatosis and sideroblastic anemia [4, 13, 14].

Also, Al-hijamah showed a promising effect in reducing serum levels of increased minerals and heavy metals e.g., aluminum, zinc and cadmium [35]. Al-hijamah was also reported in a case report study (as an adjunctive therapy) to

have an important effect in relieving symptoms of leukemia [36].

Therapeutic benefits of camel milk on some hematological disorders

Camel milk is another prophetic medicine remedy that is also used as a treatment in Arabian culture remedies (Figure 1C). Camel milk was frequently studied regarding its effects in treating different health problems. In a cross-sectional study with preschool children, it was found that the prevalence of anemia is lower amongst children who consumed camel milk than those who consumed bovine milk [37]. Moreover, camel milk has shown useful outcomes in treating patients suffering from sickle cell anemia, as it increased fetal hemoglobin (HbF) which prevents hemolytic crisis in sickle cell anemia patients [38]. Also, one study demonstrated the ability of camel milk to reduce the hematological toxicity of orally administered cadmium in rats (anemia and erythrocytic oxidative stress) [39].

Therapeutic benefits of camel urine on some hematological disorders

Currently, camel urine (Figure 1D) can be freeze-dried via lyophilization to get rid of its watery content where the resulting powder can be packed in therapeutic pharmaceutical capsules. Camel urine is another prophetic medicine remedy and is a possible option to be used in the management of several hematological conditions. One study has found that camel urine exerted antiplatelet effects and effectively inhibited adenosine diphosphate-induced platelet aggregation (i.e. camel urine exerts clopidogrel-like action). Camel urine also inhibited arachidonic acid-induced aggregation of platelets (aspirin-like action). This causes a strong antiplatelet activity, a therapeutic merit that is neither found in human urine nor bovine urine [40].

Camel urine has also shown an ability to stop the progression of tumor cells (leukemic cells) implanted in experimental animals and to exert potent anti-angiogenic effects i.e. camel urine exerts potent antineoplastic effects [41].

Therapeutic benefits of Ajwa dates (*Phoenix dactylifera*) on some hematological disorders

Ajwa date fruit is another prophetic medicine remedy that was strongly recommended by

Prophet Muhammad peace be upon him (**Figure 1E**). The intake of both Ajwa dates and iron increased hemoglobin levels more than its increase when giving iron supplementation only [42]. Another study confirmed that dates consumption in school girls increased hemoglobin, hematocrit and serum ferritin in schoolgirls having iron-deficiency anemia [43]. Ajwa dates were reported to effectively prevent and treat the deleterious hematological and histological consequences of acute diclofenac toxicity [3].

Therapeutic benefits of olive oil on some hematological disorders

Olive oil is an important remedy of prophetic medicine (**Figure 1F**), and it was recommended by Prophet Muhammad peace be upon him both to be eaten and to be used as a cream to massage body parts because it comes from a blessed tree according to the prophetic hadith. The effects of olive oil was firstly investigated regarding its ability to inhibit cytotoxicity induced by hydrogen peroxide (H_2O_2) on human erythrocytes. This study clearly proved the antioxidant ability of olive oil and its ability to protect against oxidative cytotoxicity of erythrocytes [44].

Another study confirmed the therapeutic benefits of phenols extracted from olive oil and olive mill wastewater in preventing the first steps of carcinogenesis by inhibiting oxidative damage of the genetic material at a concentration that could be easily reached through normal olive oil intake [45]. Moreover, the therapeutic effects Dihydroxyphenyl ethanol (DHPE) which is an antioxidant molecule present in enough quantities in olive oil were confirmed. DHPE inhibits lymphocytes and decreases their response by hindering their multiplication and the induction of apoptosis. This lymphocytic inhibition could have an important therapeutic effect in treating chronic inflammatory diseases and in treating hematological tumors e.g. lymphoma [46]. Furthermore, the therapeutic effects of olive oil are also evident by its enormous ability to reduce the risk of cardiovascular diseases and by its effect on the integrity of the hemostatic system, which consequently affects the cardiovascular system. The benefits of olive oil regarding that begin with its ability to reduce the concentration of low-density lipoproteins (LDL) which contributes to the accumulation of athermanous plaques and the consequent plugging of

coronary arteries. Also, new evidence emerged proving the capability of olive oil in the maintenance of the integrity of the hemostatic system by controlling platelets function, thrombogenic and fibrinolytic processes. Olive oil reduces platelets aggregation and decreases von Willebrand factor and thromboxane B2 levels in plasma. Additionally, olive oil decreases fasting levels of coagulation factor XII and alters its postprandial activation. Equivalently, constant olive oil intake reduces the tissue factor expression in mononuclear cells. Finally, olive oil increases fibrinolysis which decreases plasma activator inhibitor type-1 in blood plasma [47-49]. Therefore, olive oil and nigella sativa may be considered as an important therapeutic and preventive nutrient, which may be used in treating different coagulopathies and helps in the prevention of coronary heart diseases [50].

Therapeutic effects of natural honey on treating some hematological disorders

Honey is one of the beneficial prophetic medicine remedies that Prophet Muhammad peace be upon him recommended for therapeutic purposes (**Figure 1G**). Honey is a natural honeybee product that contains antioxidants, antimicrobials, immunomodulators, and anticancer properties. Honey decreases prostaglandin levels while increasing the levels of nitric oxide (NO) in numerous body fluids. Natural honey was found to increase NO-end products, lymphocytes percentages, platelets count, serum protein level, serum albumin level, and copper level concurrently with decreasing prostaglandin levels. Natural honey was found to reduce prostaglandin levels, increase NO synthesis, and improve hematological and biochemical measures in patients having chronic AIDS infection [51, 52]. By exerting a mitogenic impact on both B- and T-lymphocytes, natural honey helps to reverse the hematological picture brought on by COVID-19 infection. Honey promotes lymphocyte proliferation [53]. Honey shows promise in the treatment of co-morbidities that may be present in COVID-19 patients, such as diabetes and hyperlipidemia, which could hasten unfavorable outcomes. In comparison to rats fed sucrose or a sugar-free diet, HbA1c levels were dramatically lowered and HDL cholesterol was significantly raised in the rats fed honey [54].

Honey has also shown beneficial effects in treating febrile neutropenia which is a side

effect of some types of chemotherapy. Honey reduces episodes frequency of febrile neutropenia, the number of hospital admissions of febrile neutropenic patients, and the duration of hospital stay. Honey intake increases hemoglobin levels without causing any negative consequences. As a result of honey withdrawal, hemoglobin percentage, neutrophil count and platelet number all were reduced compared to the control group [55]. As a natural, secure, and efficient prophylaxis to halt COVID-19 infectiousness, transmission, and the appearance of new cases, TaibUVID dietary supplements (natural honey, nigella sativa and anthemis hyaline) are advised. It is strongly advised to do clinical trials to look into the nutritional advantages of TaibUVID. For public prophylaxis to reduce the emergence of new COVID-19 cases, TaibUVID may be promising [56].

Furthermore, one study on experimental animals found that honey protected against the harmful hematological effects of lead toxicity (inducing anemia) [57]. Finally, bee honey caused a great increase of lymphocytes. According to the *in vitro* findings, bee honey has a consistent stimulatory impact on both human B-lymphocytes (increased by 60.8%) and T-lymphocyte proliferation (increased by 36.8 percent) [53].

Therapeutic benefits of Zamzam water to hematological disorders

Prophet Muhammad peace be upon him described Zamzam water as a cure for diseases (**Figure 1H**). In rat pups, prolonged use of Zamzam water did not result in a substantial change in methemoglobin (MetHb) concentration, suggesting that Zamzam water is healthy for children [58]. Zamzam water, a natural alkaline drinking water with a pH of 8, comes from the Zamzam well in Makkah, Saudi Arabia, and is a favorite drinking water among millions of people worldwide, especially pilgrims. Keeping both the relatively high levels of arsenic and nitrate in Zamzam water safe is an important matter of general health. In response to the British Broadcasting Corporation's (BBC) concerns expressed during the previous 20 years, such safety was established. Consumers of Zamzam water (Saudis, residents and visitors) did not exhibit acute or chronic nitrate or arsenic toxicity, contrary to BBC worries. Arsenic-related cancers (cancers of the skin, bladder,

liver, kidney, and lungs) are quite rare in Saudi Arabia, according to cancer reports, and Makkah (Mecca) are among the fewest cities where they occur. Al-Madinah and Makkah (the highest cities in Zamzam water consumption) [59-61].

The absence of arsenic toxicity can be shown in the fact that arsenic-induced cancers are not among the top five cancer forms among Saudi citizens. Saudi Arabia ranks last among nations in terms of the incidence of cancer. Zamzam water also aids in treating malnutrition and dehydration because it has a high mineral and electrolyte content (in comparison to tap water). The high concentration of calcium, carbonate, potassium, magnesium, nickel, and other minerals in Zamzam water encourages its natural alkalinity [62], which mitigates disease-induced acidosis, oxidative stress, and associated tissue damage [59, 60].

After passing tap water through particular filters and electrolysis to separate the water into alkaline water (pH: 8-10) for human consumption and acidic water (removed as a waste), electrolyzed reduced water (ERW) is created within electrolyzers [63]. In addition to treating stomach acidity, ERW and Zamzam water also offer antioxidant properties that guard against poisons like carbon tetrachloride. Both Zamzam water and ERW have many therapeutic benefits that include anticancer, antidiabetic, gastroprotective, hepatoprotective, and nephroprotective effects. Zamzam water is superior to ERW because it is naturally alkaline, has a high carbonate content, is secure (ERW may be harmed by electrodes deterioration), and has a lot of strontium, an antioxidant mineral. In light of Saudi Arabia's cancer incidence reports, the anticancer properties of arsenic in Zamzam water were confirmed [64-67].

Arsenic trioxide (ATO), is produced by arsenic in Zamzam water and is helpful to healthy hematological cells. Arsenic in Zamzam water is an intriguing compound that helps treating acute promyelocytic leukemia (APL). Acute myeloid leukemia's distinctive subtype, known as APL, is distinguished by a significant risk of hemorrhagic mortality that occurs too soon because of disseminated intravascular coagulation and hyperfibrinolysis. ATO has demonstrated success in treating APL when used alone. Currently, ATO is used to treat APL and relapsed APL [68]. In gastrointestinal cancers, such as human

liver cancer cells, ATO has been shown to inhibit DNA methyltransferase, which results in the silencing of tumor suppressor genes, and to restore the methylation-silenced genes. Tumor suppressor genes were activated (demethylated) by low concentrations of ATO [69]. The promyelocytic leukemia protein (PML) is directly interacted by ATO, accelerating the degradation of the PML/retinoic acid receptor-fusion oncoprotein associated with APL. ATO was also shown to stop the development of offspring PML bodies during leukemic cell division without causing any discernible cell-cycle abnormalities [70]. It's interesting to note that 1-2 μM ATO (almost same concentration of arsenic in Zamzam water) [62] has been shown to induce apoptosis in human breast cancer cells. This quantity is close to the range of inorganic arsenic exposure to humans that was thought to have occurred in Chile during the period of elevated exposure to arsenic in drinking water [71].

Therapeutic benefits of figs on hematological disorders

Ficus carica Linn's (figs) ripe dried fruit is mentioned in the holy Qur'an together with olives (Figure 1I). Hence, it can be looked at as a prophetic medicine remedy. Fig is used in herbal medicine to treat gastrointestinal and inflammatory problems. Many researchers discovered spasmolytic and antiplatelet effects exerted by dried fruits of *Ficus carica*. This is presumably caused by the activation of adenosine triphosphate (ATP)-sensitive potassium channels (K^+_{ATP} channels), providing a strong pharmacological ability for its therapeutic use in improving the gastrointestinal motility and treating the inflammatory diseases [72].

Ficus carica is a plant with bioactive and antioxidant constituents rich in iron that stimulates hematopoiesis. *Ficus carica* has emerged as a valuable natural nutritional source that helps treating anemia, cancer, diabetes, leprosy, liver diseases, paralysis, skin diseases, and ulcers. In pharmaceutical biology, fig is a promising candidate for new drug development and formulation, as well as a possible nutrient for clinical applications [73]. Gas chromatography-mass spectrometry (GC-MS) investigation revealed a number of phytochemical compounds in *Ficus carica* with potential therapeutic values. The majority of the newly discovered phy-

tochemical compounds were found in figs for the first time. Using high performance liquid chromatography (HPLC), many phenolic acids and flavonoids with various therapeutic properties were described and quantified in *Ficus carica*. *Ficus carica*'s phenolic content had a cytotoxic effect against acute myeloid leukemia (HL-60) cells that was comparable to doxorubicin, a popular anticancer medication. Furthermore, even at high concentrations, fig extracts were not harmful to the human normal melanocytes (HFB4 cell line). Finally, the phenolic content of *Ficus carica* may be used as a cancer-fighting therapeutic agent [74].

Therapeutic benefits of costus on hematological disorders

Costus (Figure 1J) has antihyperglycemic, antiarthritic, analgesic, hepatoprotective, cardioprotective, nephroprotective, antibacterial, and antioxidant properties.

Costus also protects the testicles and has CNS-depressant properties. Numerous oxidative stress-related disorders can be treated with costus as an alternative or complementary therapy [75]. A more advantageous nutritional supplement called TaibUVID Forte contains TaibUVID as well as the three medicinal plants costus, senna, and fennel. It can also be manufactured at home [76].

Therapeutic benefits of senna on hematological disorders

Senna (Figure 1K) contains the anthraquinone derivative emodin. A rodent model of schizophrenia's neurobehavioral impairments is improved by emodin [77]. The recent coronavirus outbreak SARS-associated coronavirus 3a protein, which is responsible for coronavirus release, was reported to be inhibited by emodin [78]. Senna's emodin may bind to the SARS-COV-2 spike protein and stop the virus from binding to the ACE receptors on intestinal cells. The viral load may significantly decrease as a result of the virus being excreted outside of the digestive tract due to senna-induced diarrhea. If senna-induced diarrhea bothers the patient, he should at least take TaibUVID Forte with senna for three days (to benefit from senna and emodin's therapeutic properties), after which he can switch to TaibUVID Forte without senna [76, 79].

Therapeutic benefits of fennel on hematological disorders

Fennel (**Figure 1L**) contains a variety of antioxidant ingredients. Fennel has a variety of beneficial health effects, including antimicrobial, antiviral, anti-inflammatory, antimutagenic, antinociceptive (pain killer), antipyretic, antispasmodic, antithrombotic, apoptotic, cardiovascular, chemomodulatory, antitumor, hepatoprotective, hypoglycemic, hypolipidemic, and memory-enhancing effects [76, 79].

For the authors, prophetic medicine remedies are quite vital, cheap, available and effective remedies for treating many disease conditions in different medical specialties. They should be prescribed as adjuvants for treating so many diseases and ailments. Being natural antioxidants rich in dozens of antioxidant ingredients, this supports the use of prophetic medicine remedies in treating cancer (via antagonizing oxidative stress induced tumour-derived lactate, the Warburg effect) and inflammatory conditions [80].

Conclusion

This review article concludes that prophetic medicine remedies as honey, figs, Al-hijamah, nigella sativa, camel milk, Ajwa dates and olive oil are protective against different types of anemia. Also, Al-hijamah, nigella sativa, camel urine, olive oil, figs and honey may play a role in suppressing the progression and alleviating the symptoms of different types of hematological cancers and relieving the side effects of different treatments. Furthermore, nigella sativa, camel urine and olive oil were confirmed to be protective against the formation of thrombi. Moreover, camel milk and olive oil may provide protection against toxins-induced cellular damage.

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Disclosure of conflict of interest

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