Al-hijamah did not decrease red cell mass or hemoglobin in polycythemia rubra vera (in agreement with Taibah theory): A case study and concise therapeutic note

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Abstract

Background: Polycythemia rubra vera is characterized by increased RBCs, hemoglobin and hematocrit.

Case study: We report a 40 years patient having polycythemia vera with normal biochemical investigations. At Al-hijamah clinic of Taibah University Medical Center, Al-hijamah was performed in the sitting position at the known anatomical sites: kahel region (skin overlying the 7th cervical vertebra), sub-kahel region, interscapular region, and lower back. The patient felt transient dizziness and lied down in left lateral position then completed Al-hijamah in the sitting position. Sharta mihjam (superficial skin scarifications) following 1st suction step were performed and a generous bloody excretion (about 200 cc) was excreted.

Results: 3 weeks later (to exclude acute irrelevant events), complete blood count revealed that Al-hijamah caused increased red cell mass from 5.95 (X 106 cells/µL) before Al-hijamah to 6.11 (X 106 cells/µL) after Al-hijamah, increased hemoglobin from 17.76 g/dL before Al-hijamah to 18.63 g/dL after Al-hijamah and increased hematocrit value from 52% before Al-hijamah to 53.3% after Al-hijamah. Al-hijamah relieved the symptoms lack of energy (fatigue), tiredness, headaches, and dizziness.

Conclusion: No significant change occurred in hemoglobin, RBCs or hematocrit value after Al-hijamah. Interestingly, all increased after Al-hijamah, but symptoms of polycythemia rubra vera (as fatigue) were relieved. This agrees with Taibah theory where causative pathological substances are excreted through the fenestrated dermal capillaries in a size-dependent manner and the bloody excretions contain filtered vascular fluids, tissue fluids and some RBCs (due to skin scarifications). RBCs are larger in size than the dermal capillary fenestrations and can't be excreted during Al-hijamah. Al-hijamah appears to be safe in anemia. Phlebotomy is recommended rather than Al-hijamah in treating polycythemia. Al-hijamah-induced bone marrow stimulation needs investigations.

Keywords: Complementary medicine; Hematology; Wet cupping therapy; Polycythemia rubra vera; Red cell mass.

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Introduction

Polycythemia vera is a clonal disorder causing increased multipotent hematopoietic progenitor cells. This results in accumulation of morphologically normal red cells and their precursors with no definable stimulus in exclusion of nonclonal hematopoiesis **(Adamson et al., 1976)**. Red blood cell mass is elevated in polycythemia vera. These patients are at risk for thrombosis due to the resulting hyperviscosity of the blood. Patients with splenomegaly, portal vein thrombosis, or high hemoglobin or hematocrit levels should be suspected of having polycythemia vera. Other causes of elevated red blood cell mass (such as heavy smoking, chronic lung disease, and renal disease) need to be ruled out. The Polycythemia Vera Study Group defined the diagnostic criteria, which include palpable splenomegaly, normal oxygen saturation, and high red blood cell mass. Patients who receive no therapy may only live for six to eighteen months, whereas those who receive proper care may live for almost ten years. Phlebotomy is part of the treatment, and myelosuppressive medications may also be used. Agents under investigation include interferon alfa-2b, anagrelide, and aspirin. Continuous consultation with a hematologist is recommended **(Stuart and Viera, 2004)**.

Many Arabic countries employ Al-Hijamah, Arabic and prophetic wet cupping therapy (also known as wet cupping therapy of prophetic medicine and is part of the legacy of Arabic medicine). Medical and scientific bases of Al-hijamah were reported in Taibah mechanism (Taibah theory) **(El Sayed et al, 2013a)**. Compared to traditional Chinese wet cupping therapy. Al-hijamah is more therapeutically beneficial **(El Sayed et al., 2014a)**. In our earlier research studies, we firmly advise practicing Al-hijamah in hospitals within the routine medical practice in the treatment of numerous ailments with varying etiology and pathophysiology. Al-hijamah was our top choice as an adjuvant for thalassemia treatment that significantly reduced serum ferritin in thalassemic patients **(El-Shanshory et al., 2018).** Al-hijamah is an excretory treatment that greatly reduces harmful chemicals in the blood **(El Sayed et al., 2014a; El Sayed et al., 2014b; El Sayed, 2023a; El Sayed, 2023b)**. Al-hijamah may be a suitable option for treating thalassemia since it can remove excess iron and ferritin from thalassemic blood through percutaneous iron excretion.

In our previous report, Al-hijamah did not decrease the red cell mass or exaggerate anemia in thalassemic children. On the contrary, Al-hijamah significantly and maximally decreased the iron overload-induced oxidative stress that is implicated with thalassemia-related hemolysis. That was associated with a significant and maximal increase in total antioxidant capacity **(El-Shanshory et al., 2018)**. In our earlier works, we strongly advised and suggested the routine use of Al-hijamah in hospitals to treat a wide range of illnesses with varying etiology and pathophysiology. Al-hijamah was our top choice for thalassemia treatment. Al-hijamah is a promising treatment for thalassemia and considerably reduced serum ferritin in healthy patients. Al-hijamah is an excretory treatment that greatly reduces harmful chemicals in the blood, increases T helper and T cytotoxic lymphocytes and exerts significant tissue-protective effects **(El Sayed et al., 2013; El Sayed et al., 2014b;**

El-Shanshory et al., 2018; El-Shanshory et al., 2020; El-Shanshory et al., 2022; El Sayed, 2023a; El Sayed, 2023b).

Case study

We report a 40 years old manual worker from Egypt known to have polycythemia rubra vera presenting with lack of energy (fatigue), tiredness, headaches, and dizziness. The patient asked for Al-hijamah at Taibah University medical center to treat his increased red cells mass. His complete blood picture revealed that his red blood cells count is 5.95 (X 10^6 cells/µL), hemoglobin 17.76 g/dL and his hematocrit value was 52% (table 1). His serum biochemistry (serum glucose, and iron), liver function tests, lipid profile and kidney function tests were quite normal.

Al-hijamah was performed to the patient at Al-hijamah clinic of Taibah University Medical Centre (Al-Madinah, Saudi Arabia) by the author Salah M. El Sayed, a licensed hijamatologist physician (from the Saudi Ministry of Health, MOH represented by the National Center for Complementary and Alternative Medicine, NC-CAM). A generous session of prophetic wet cupping therapy (Al-hijamah) using 18 sucking cups of variable sizes was performed. The cups were applied to the well-known anatomical sites of Al-hijamah as the kahel region (skin overlying the 7th cervical vertebra), sub-kahel region, the 2 interscapular anatomical sites, peri-kahel region and 3 horizontal rows of sucking cups were applied at the vertebral and para-vertebral anatomical regions with each row containing 3 sucking cups (**Fig.1**).

Fig. 1. A prior skin sterilization using ethanol alcohol was done at the early beginning of Al-hijamah and final sterilization was done at the end of Al-hijamah. First step of Al-hijamah is the 1st suction step. A-B: A generous number of sucking cups (18 cups) were applied to the back during the session of prophetic wet cupping therapy (Al-hijamah) employing eighteen sucking cups of varying diameters. **A.** The cups were applied to the well-known Al-hijamah anatomical sites, including the peri-kahel region, the sub-kahel region, the two interscapular anatomical sites, in addition to the kahel region (skin covering the seventh cervical vertebra). **B.** Three horizontal rows of sucking cups were applied at the vertebral and para-vertebral anatomical regions, with three sucking cups in each row.

The patient came for Al-Hijamah after a small breakfast and Al-hijamah was performed in the sitting position. The patient felt a little bit dizzy (may occur during Al-hijamah) and he was asked to lie down in the left lateral position and Al-hijamah was completed (**Fig.2**).

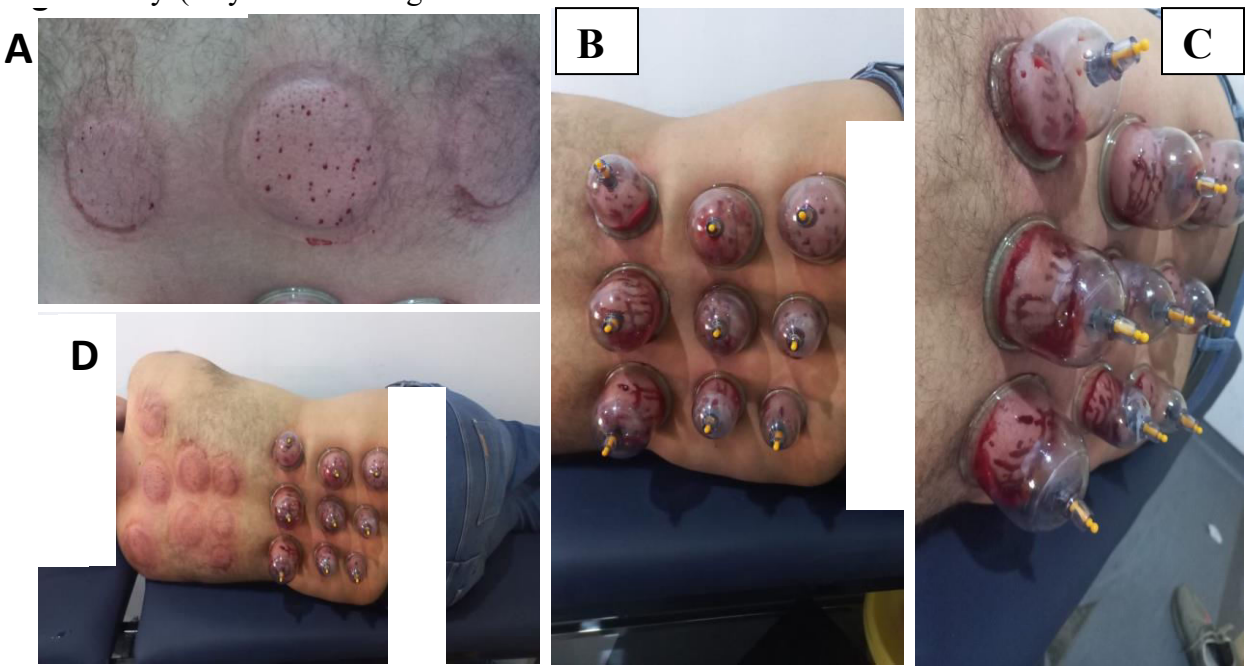

Fig. 2. Second step of Al-hijamah is the superficial skin scarification step. A. Immediately after removing the sucking cups, the cups sites were scarified using sterile new scalpel blade producing superficial, productive, vertical, small, tiny, equally distributed skin scratches that were limited to the cupped areas and lied in parallel rows. **B-D: Third step of Al-hijamah is the 2nd suction step (= shartat mihjam)** that follows the skin scarification step immediately**.** The bloody excretion starts to come out immediately after Al-hijamah (according to Taibah mechanism) where a pressure-dependent and size-dependent excretion of causative pathological substances occurs causing a percutaneous generalized clearance of the blood circulation and local tissues at sites of cups application. According to Taibah mechanism, the bloody excretion is a mixture of interstitial fluids, filtered fluids from blood circulating in the dermal capillaries and a minor quantity of blood loss due to scarification-induced inevitable trauma to parts of the superficial dermal fenestrated capillary networks. The patient felt dizzy and needing to lie down during the 3rd step of Al-hijamah and the physician helped the patient to lie down in the left lateral position. The patient received a fruit drink and he was quite Ok.

Sharta mihjam (superficial skin scarifications) following 1st suction step were performed using a sterile disposable scalpel (figure 2A-D). The sucking cups were applied few times and a generous amount of bloody excretion (about 200 cc) was excreted (**Fig.3A-D** and **Fig.4A**). The patient was quite Ok again and Al-hijamah was completed to him while in the sitting position. All the sucking cups were removed at the end of Al-hijamah (**Fig.4B-D**) and the sites of cups application were sterilized.

Marks of the sucking cups after Al-hijamah were sterile and clean and persisted for few hours then disappeared without any sequelae.

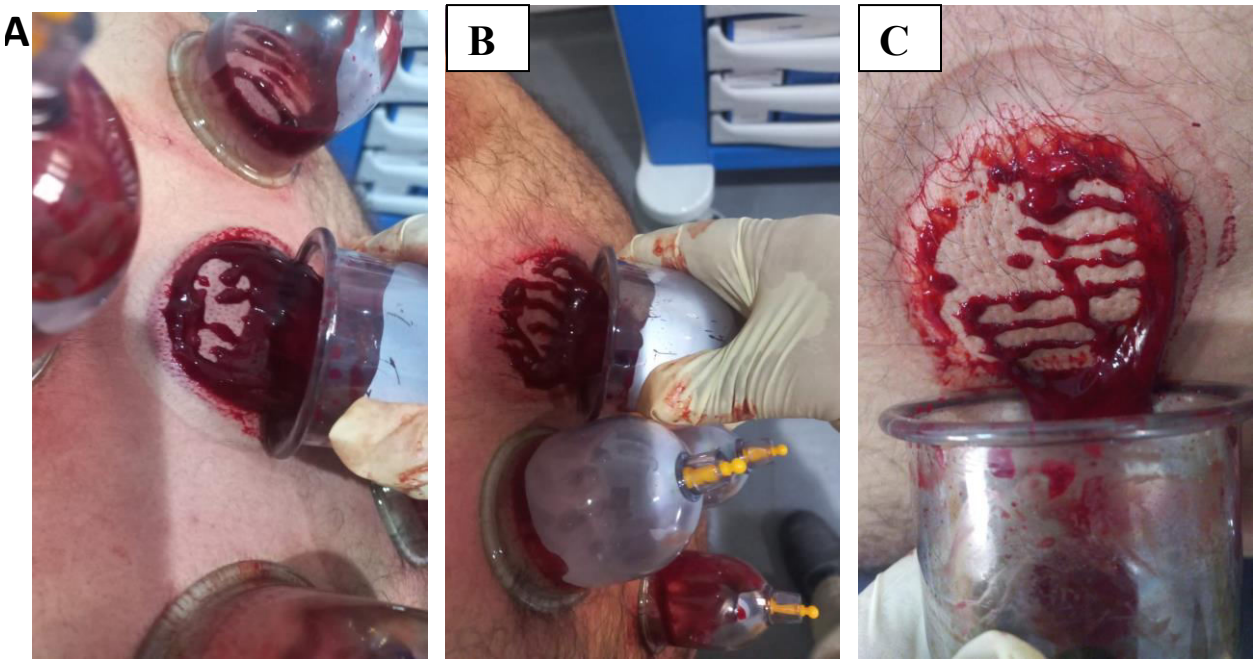

Fig.3. The bloody excretion clots within the sucking cups. A-C: The bloody excretion starts to come out via the different productive skin scarification sites under the persistent suction pressure inside the suction cups and forms streaks of bloody collections that clot rapidly and retards the coming of more bloody excretion. Hence, the sucking cups are removed, cleared using sterile towels and re-applied again aiming at excreting a more bloody excretion.

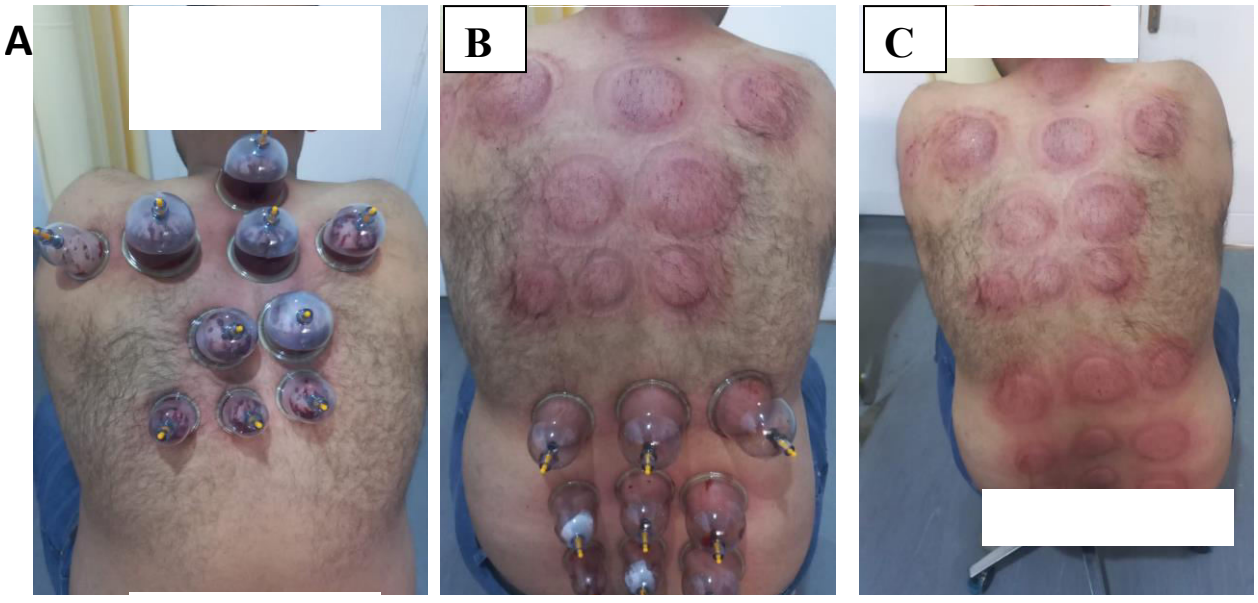

Fig.4. Bloody excretion and post-Al-hijamah cupping marks. A. The bloody excretion starts vigorously in the beginning of the 3rd cupping step (= shartat mihjam = post-scarifications suctioning) and a reasonable generous amount of bloody excretion is excreted in the majority of applied cups. After repeated application of the sucking cups, the amount of the bloody excretion gets slower and stops denoting the end of Al-hijamah session. **B-C.** The post-cupping marks denote the circular skin elevations sites at the sites of sucking cups application. They are very transient, gradually fade and disappear completely within the next few days. Skin scarification sites are quite transient also and heal spontaneously within few hours and the patient can take a shower few hours after Al-hijamah. Local skin sterilization was applied immediately after Al-hijamah session.

About 3 weeks later (to exclude acute irrelevant events), complete blood count was repeated for the patient for comparing the blood parameters. Interestingly, Al-hijamah resulted in increased red cell mass from 5.95 (X 10^6 cells/µL) to 6.11 (X 10^6 cells/µL), increased hemoglobin from 17.76 g/dL to 18.63 g/dL and increased hematocrit value from 52% to 53.3%. Al-hijamah relieved the symptoms as lack of energy (fatigue), tiredness, headaches, and dizziness (**Table.1 , Fig.5**).

Table 1. Complete blood picture of the patient before and after Al-hijamah

CBC parameters	Before Al-hijamah	After Al-hijamah
RBCs (X 10^6/µL)	**5.95**	6.11
Hemoglobin (g/ dL)	**17.76**	18.63
Hematocrit value (%)	**52**	53.3
WBCs (X 10^3/µL)	**5.1**	5.19
Lymphocytes (X 10^3/µL)	**2.33**	2.4
Lymphocytes (%)	**45.73**	46.25
Monocytes (X 10^3/µL)	**0.41**	0.51
Monocytes (%)	**8.05**	9.81
Neutrophils (X 10^3/µL)	**1.99**	1.96
Neutrophils (%)	**38.94**	37.74
Basophils (X 10^3/µL)	**0.02**	0.01
Basophils (%)	**0.39**	0.16
Eosinophils (X 10^3/µL)	**0.35**	0.31
Eosinophils (%)	**6.89**	6.04
MCV (fL)	**87.4**	87.3
MCH (pg)	**29.8**	30.5
MCHC (g/dL)	**34.2**	35
RDW (%)	**13.4**	13.4
RDW-SD (fL)	**39.9**	40.8
Platelets (X 10^3/µL)	**255.1**	250
MPV (fL)	**8.79**	8.88

Figure 5

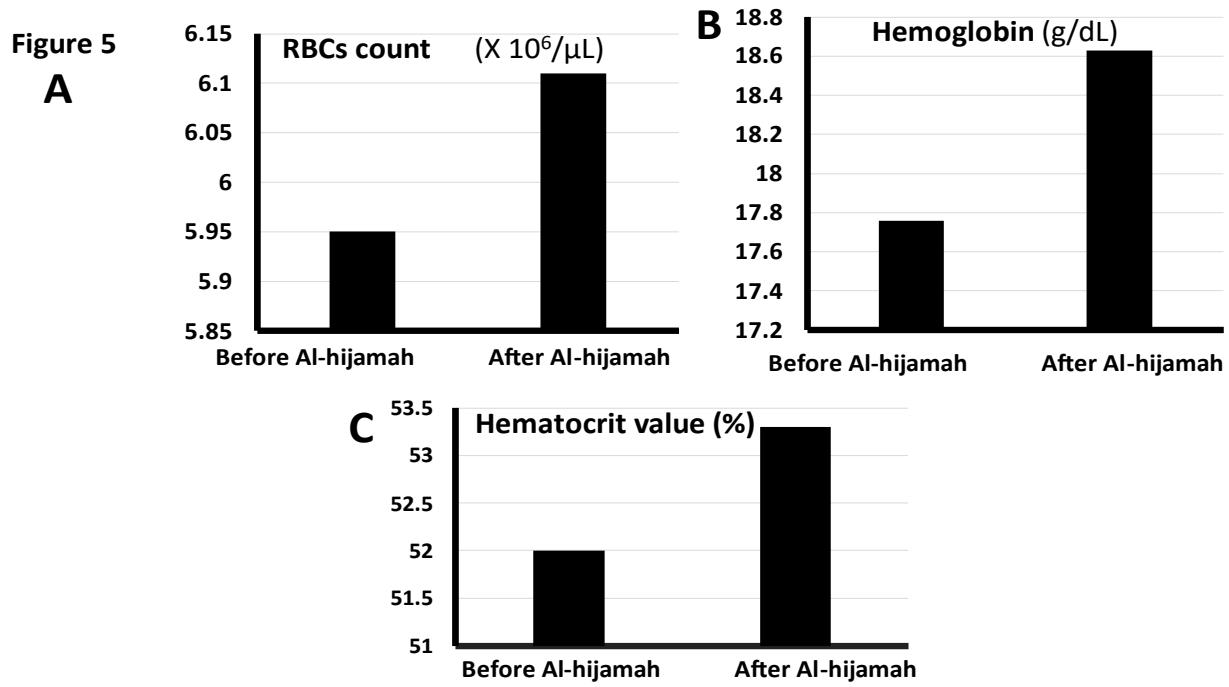

Fig.5. Al-hijamah slightly increased red cell mass, hemoglobin and hematocrit value in polycythemia patients. A. Al-hijamah increased RBCs from 5.95 (X 10^6/µL) before Al-hijamah to 6.11 (X 10^6/µL) after Al-hijamah. **B.** Al-hijamah increased hemoglobin from 17.76 g/dL before Al-hijamah to 18.63 g/dL after Al-hijamah. **C.** Al-hijamah increased hematocrit value from 52 % before Al-hijamah to 53.3% after Al-hijamah.

Discussion

This 40-years old man asked for treating polycythemia using Al-hijamah in the hope that the bloody excretion during Al-hijamah may help in decreasing the increased red cell mass and its subsequent complications in polycythemia. However, the medical bases of Al-hijamah (Taibah theory, Taibah mechanism) demonstrated that Al-hijamah excretes pathological substances in a size-dependent basis through the fenestrae of the fenestrated skin capillaries (6-12) that are quite smaller than the size of RBCs (7.5 to 8.7 µm in diameter and 1.7 to 2.2 µm in thickness) **(Diez-Silva et al., 2010)**. In this case study, the patient's RBCs count increased after Al-hijamah despite the presence of a relatively large volume of the bloody excretion that gives the impression that a significant quantity of blood cells was not lost during Al-hijamah. This is in agreement with Taibah theory on size bases and removes the fears and misunderstanding that Al-hijamah may be a cause of blood loss and opens the gate towards extensive practice of Al-hijamah to treat different disease conditions **(El Sayed, 2023; El Sayed et al., 2014a; El Sayed et al., 2014b; El Sayed et al, 2013a; El-Shanshory et al, 2022; El-Shanshory et al., 2020; El-Shanshory et al., 2018; El Sayed, 2024)**.

Taibah mechanism (Taibah theory) states that: "Using a physiological excretory mechanism (pressure-dependent filtration and excretion " through the fenestrated capillaries of the skin dermis (acting as a filter) that resemble the fenestrated capillaries of the renal glomeruli, Al-hijamah (wet cupping therapy of prophetic medicine) acts as a super kidney that can excrete all causative pathological substances (CPS) collectively and simultaneously outside the human body. This clears the tissues, serum and intercellular fluids from CPS and enhances the immunity" **(El Sayed, 2023; El Sayed et al., 2014a; El Sayed et al., 2014b; El Sayed et al, 2013a; El-Shanshory et al, 2022; El-Shanshory et al., 2020; El-Shanshory et al., 2018; El Sayed, 2024)**.

Examples of CPS are quite diverse and differ from disease to disease. In hypercholesterolemia, Al-hijamah decreased serum cholesterol while in in hypertriglyceridemia, Al-hijamah decreased serum triglycerides **(El-Shanshory et al., 2020).** In gout, Al-hijamah decreased serum uric acid **(Firdaus et al., 2023)**. In headache and migraine, Al-hijamah decreased serum inflammatory mediators as IL-6 & TNF-α in healthy subjects **(Al-Tawarah, 2022)**. In high blood inflammatory cytokines, Al-hijamah greatly improves headache and migraine **(Tabatabaee et al., 2014)**. In toxemia and septicemia, Al-hijamah decreased serum toxins **(Umar et al., 2018)**. In certain psychiatric conditions, $GABA_A$ receptor concentration increases in pain conditions as fibromyalgia **(Pomares et al., 2020)**. Al-hijamah decreased GABA-A receptor expression in the spinal cord in a rat model of neuropathic pain **(Hidayati et al., 2023).** Al-hijamah is suggested to decrease the accumulating metabolites in errors of metabolism **(El Sayed et al., 2014a). In autoimmune diseases,** Al-hijamah decreased rheumatoid factor in rheumatoid arthritis patients **(Ahmed et al., 2005; Baghdadi et al., 2015).** Al-hijamah decreased the high ferritin in thalassemic children **(El-Shanshory et al., 2018).** Al-hijamah is suggested to excrete viral particles **(El Sayed, 2023a)** in lethal viral infections as AIDS and hepatitis viruses. Al-hijamah-induced clearance and immunological effects are promising for treating cancer patients **(Abbasi and Najafi, 2023).** Al-hijamah decreased serum oxidants and oxidative stress-related miRNAs from the body **(Unat et al., 2023).** That is quite helpful in many disease conditions.

The vital technique and skill during Al-hijamah is the superficial skin scarifications (shartat mihjam), which should be superficial to maintain the structure and function of the subepidermal fenestrated horizontal plexus of capillaries and multiple to create several gaps in the skin barrier during Al-hijamah. To sum up, Al-hijamah did not affect hemoglobin, hematocrit, or red cell mass where all of them increased after Al-hijamah. This supports Taibah theory, which states that pathologic substances are removed during Al-hijamah through the fenestrated dermal capillaries in a size-dependent way. Taibah theory states also that filtered vascular fluids, tissue fluids, and some red blood cells (from skin scarifications) are all present in the bloody excretions of Al-hijamah. RBCs are unable to be expelled during Al-hijamah because they are bigger in size than the dermal capillary fenestrations. When treating polycythemia, phlebotomy is recommended rather than Al-hijamah. The bone marrow stimulating

effect caused by Al-hijamah merits more research investigations.

Conclusion

Our data indicates that Al-hijamah has no effect on hemoglobin, hematocrit, or red cell mass. It is interesting to note that following Al-hijamah, red cell mass, hemoglobin, and hematocrit values all rose. Al-hijamah appears to be safe in treating anemia patients with no risk of blood loss or exaggerating the anemic condition. This calls for more research because it might be a result of Al-hijamah's bone marrow stimulating impact. Phlebotomy not Al-hijamah is recommended in treating polycythemia.

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