CASE REPORT
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Acupuncture treatment for high d-dimer in blood

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Abstract

When a blood vessel is injured, the body initiates hemostasis to form a clot and prevent excessive bleeding. During this process, fibrin threads stabilize the clot. After healing occurs, the clot is broken down into smaller fragments, one of which is called D-dimer, a fibrin degradation product. Elevated D-dimer levels may indicate the presence of a significant blood clot, such as deep vein thrombosis (DVT). DVT occurs when a clot forms in a deep vein, most commonly in the legs, and can result in serious complications. Traditional Chinese Medicine (TCM) may help reduce elevated D-dimer levels by improving blood circulation and reducing blood stasis, which is associated with hypercoagulation, inflammation, and deep vein thrombosis (DVT). When combined with Western treatments such as Low Molecular Weight Heparin (LMWH), TCM may support vascular function, inhibit platelet activity, and enhance blood flow. This research article discusses a patient who is 46 years old and has had high D-dimer levels in her blood for a long time. The patient had her last blood test done on March 18, 2026, where the D-dimer value was 829.9 ngr/ml (0-500). According to the history, the patient also has a problem with anemia (Fe - 3), had mitral prolapse - receiving therapy, tachycardia, endometriosis and a vocal cord polyp for which she underwent surgery. She came to our acupuncture center on 04.04.2026 and started treatments the same day. Treatments were performed once a week. On April 30, 2026, she had a repeat blood test, which showed a D-dimer value of 317.6. This D-dimer value was obtained after 5 acupuncture treatments. TCM and acupuncture can improve blood circulation, Qi flow and remove obstruction in channels.

Key Words: D-dimer, blood, treatment, acupuncture, TCM

Introduction

When a blood vessel is injured, the body initiates hemostasis to form a clot and prevent excessive bleeding. During this process, fibrin threads stabilize the clot. After healing occurs, the clot is broken down into smaller fragments, one of which is called D-dimer, a fibrin degradation product. Blood clotting disorders occur when clots form without injury or fail to dissolve properly after they are no longer needed. This indicates that the body’s normal clotting process is not functioning correctly. Such conditions can become serious and may even be life-threatening if left untreated. An elevated D-dimer level may indicate the presence of abnormal clot formation and breakdown within the body. Since D-dimer is produced when blood clots dissolve, high levels in the blood are often associated with clotting disorders.

The D-dimer test is commonly used to help rule out serious conditions related to abnormal blood clotting. It is especially useful for identifying disorders such as deep vein thrombosis (DVT), pulmonary embolism (PE), stroke, and disseminated intravascular coagulation (DIC). Deep vein thrombosis usually occurs in the legs and may cause swelling, pain, and redness. Pulmonary embolism develops when a blood clot travels to the lungs, leading to symptoms such as chest pain, difficulty breathing, coughing, and a rapid heartbeat. The test may also support the evaluation of stroke, a condition caused by blocked or ruptured blood vessels in the brain, which can rapidly damage brain cells. In addition, D-dimer testing can assist in detecting disseminated intravascular coagulation, a rare disorder in which excessive clotting throughout the blood vessels interferes with normal blood flow and oxygen delivery to tissues. [1] [2]

A positive or elevated D-dimer test may indicate the presence of blood clots in the body. However, increased D-dimer levels are not specific only to clotting disorders and can occur in several other conditions. Factors such as smoking, infections, cancer, pregnancy, sepsis, and physical trauma may also raise D-dimer levels.

Higher D-dimer values can additionally be seen in individuals without active blood clots, including older adults, people with autoimmune diseases, immobilized patients, and those who have recently undergone surgery. Because of these limitations, further diagnostic testing is often required to confirm the underlying cause. [3]

Case report

This research article discusses a patient who is 46 years old and has had high D-dimer levels in her blood for a long time. The patient had her last blood test done on March 18, 2026, where the D-dimer value was 829.9 ngr/ml (0-500). According to the history, the patient also has a problem with anemia (Fe - 3), had mitral prolapse - receiving therapy, tachycardia, endometriosis and a vocal cord polyp for which she underwent surgery. She came to our acupuncture center on 04.04.2026 and started treatments the same day. Treatments were performed once a week. On April 30, 2026, she had a repeat blood test, which showed a D-dimer value of 317.6. This D-dimer value was obtained after 5 acupuncture treatments.

The acupuncture treatments were made in a Center for TCM and acupuncture in Skopje, North Macedonia by a doctor specialist in acupuncture. Acupuncture treatments were with a duration of 30 minutes. Treatments were done indoors, on a room temperature, with normal (dry) acupuncture with fine sterile disposable needles sized 0.25x25mm. Acupuncture points used in the treatments were on the meridians: Li, LV, HT, RM, ST, PC.

Traditional Chinese Medicine, developed through thousands of years of clinical practice, uses a holistic and individualized approach to treatment. Elevated D-dimer and DVT levels are believed to result from qi imbalance, blood stasis, and damp-heat accumulation in the lower limbs. Therefore, treatment focuses on improving blood circulation, removing blood stasis, reducing heat, and relieving swelling. Transdermal therapy, which involves applying herbal preparations to acupoints or affected areas, has gained attention for its ability to deliver therapeutic agents through the skin while avoiding first-pass metabolism and reducing systemic side effects.[4]

Acupuncture is a therapeutic technique used to regulate physiological and neurological functions. Archaeological evidence suggests that acupuncture tools originated in the Neolithic period, while the earliest written records date back to the Shang Dynasty (1766–1046 BC). Acupuncture stimulation produces therapeutic effects by activating cortical networks and reducing activity in the limbic-paralimbic neocortical system. Acupuncture is believed to regulate multiple biological functions. Studies have shown

that it can influence cytokine levels, hormone secretion, and leukocyte counts. Proper blood circulation supports the delivery of oxygen and nutrients throughout the body while helping prevent pain-producing substances and the formation of reactive oxygen species. [5] [6]

Conclusion

From the perspective of Traditional Chinese Medicine, acupuncture may contribute to restoring the balance of qi, improving blood circulation, and reducing blood stasis, which could positively influence physiological processes related to vascular health. According to this report, acupuncture provides positive results in managing elevated D-dimer levels and related circulatory disorders.

References

1 Written by WebMD Editorial Contributors, Medically Reviewed by Minesh Khatri, MD, What Is the D-Dimer Test? August 06, 2025, [www.webmd.com/dvt/what-is-the-d-dimer-test]

2 Cleveland Clinic Staff, D Dimer test, 11.09.2021 [my.clevelandclinic.org/health/diagnostics/22045-d-dimer-test]

3 Medically reviewed by Carissa Stephens, R.N., CCRN, CPN — Written by Hana Ames - D-dimer test results: What is the normal range? Updated on April 24, 2026 [www.medicalnewstoday.com]

4 Wei Yong, Effectiveness of traditional Chinese medicine transdermal therapy in preventing lower limb deep vein thrombosis in chronic, Pak. J. Pharm. Sci., Vol.38, No.5, September-October 2025, pp.1859-1866. [doi.org/10.36721/PJPS.2025.38.5.REG.14686.1]

5 Mcculloch M, Nachat A, Schwartz J, Casella-Gordon V, Cook J. Acupuncture safety in patients receiving anticoagulants: a systematic review. Perm J. 2015 Winter;19(1):68-73. doi: 10.7812/TPP/14-057. Epub 2014 Nov 24. PMID: 25432001; PMCID: PMC4315381.

6 Lismaniah, Abdurrohim K, Srilestari A, Barasila AC. The Effect of Electroacupuncture on Plasma Fibrinogen Levels in Restraint Stress Wistar Rats. Med Acupunct. 2020 Apr 1;32(2):80-89. doi: 10.1089/acu.2019.1370. Epub 2020 Apr 16. PMID: 32351661; PMCID: PMC7187973.

Conflict of interest
The author have declared that no competing interests exist.
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None.
Statement of Informed Consent
Written informed consent was obtained from the patient for his anonymized Information to be published in this article