



## A Short Communication on Hemophilic Arthropathy among Women

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### Abstract

Hemophilic arthropathy is a condition whereby the articular bleeding confines into the joint cavity, either as a part of injury or under traumatic situations in hemophilic patients. It typically affects the musculoskeletal systems persisting with pains, inflammations, and decreased range of motion. Even though more common among men, women do suffer from this condition and get mostly affected during menstruation cycles, childbirth, and other ad-hoc conditions. The therapeutical principles of yoga are found to be more welcoming than other manual therapies since yoga focuses on an optimum lifestyle that coordinates mind, body, and soul for improving the quality of life.

**Keywords:** Hemophilia; Women; Arthropathy; Yoga therapy; Quality of life

### Short Communication

Hemophilia is a disorder condition during bleeding due to the deficiency of factors such as Factor VIII or IX in both hemophilia A and B respectively. This is a rare condition of inheritance whereby the coagulation factors remain absent among patients mostly in men. Women are most prone to being carriers of this deficiency from their fathers but due to unexpected mutations, they themselves become the sufferers at times. The disorder is being addressed as an orthopedic condition because, in most cases, hemorrhages take place in the musculoskeletal system whereas very few cases show hemorrhages in other systems, especially the central nervous system [1]. This X chromosome-linked genetic disease occurs with frequent hemorrhages marking changes in the synovial joints leading to changes in cartilages [2]. The main difficulties faced by such patients include spontaneous bleedings, chronic pains, mobility limitations, etc [3]. Hence intra muscular injections are avoided as well as the possibility of gastrointestinal bleedings is taken care of while prescribing medications for such patients [1].

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Hemarthrosis or joint bleeding is the common musculoskeletal problem seen among hemophilic patients. This can gradually give rise to severe damage to the joints. In such cases, blood aspirations are followed during the joint bleeds in order to prevent future damage to joints [4]. This condition, also known as hemophilic arthropathy is seen mainly in joints (elbows, knees, ankles) due to recurrent hemorrhages with inflammations in intra articular regions. It can also be multi articular affecting the multiple joints at a time. As a preventive measure, prophylactic intervention in the form of administering the clotting factors in anticipation of bleeding or in other cases to prevent bleeding can be followed. Otherwise, it can lead to chronic and multi articular hemophilic arthropathy. Especially in the case of surgical interventions, the requirement of factor cover is unavoidable along with hematologists, orthopedic surgeons, physicians with respect to rehabilitation along with physiotherapists [1]. In the case of joints, the appropriate movements should be given at regular intervals so as to maintain the range of motions as well as improve muscle strength [5].

To an extent, such difficulties can be managed by manual therapies namely fascial therapy. Fascia is called the connective tissue that binds the body structures together. Therefore, in this therapy sustained pressures are applied to reduce fascial system restrictions thereby improving the movement quality as well as vascular and lymphatic efficiency. The subjects showed positive outcomes by reduced bleedings, and improvements in pain at joints, mainly in hemophilic elbow arthropathy [3]. But this congenital coagulation factor deficiency can also lead to traumas for the concerned. Due to the disabling condition of hemophilic arthropathy, the patient will be mentally stressed and depressed thinking about the future disabilities they are going to face due to the non-availability of appropriate treatment therapies in this regard. Therefore, a modifying therapy is necessary at the most to determine and administer an optimal pathway in dealing with such patients [6].

Even though men are more susceptible to the clotting factor deficiency in the blood, women reported with mild cases also faces serious genetic causes for such a disorder [7]. It can be seen that a severe or moderate form of hemophilia is rare among women [7] but mild cases are reported with a frequency of one in five hemophilic patients [8]. Usually, females are classified accordingly into four categories explained in terms of causality factors such as homozygosity (two hemophilic chromosome genes that are similar), compound heterozygosity (two dissimilar hemophilic chromosome genes), heterozygosity (two dissimilar chromosome genes in which one is normal and the other is hemophilic), hemizygosity (presence of one hemophilic chromosome gene without a normal one) and genetic as well as non-genetic factors. The cases in which the normal chromosome gene is absent are surer to be affected by hemophilia. Such females are similar to affected males. But women possess additional complications due to menstruation, childbirth, abortion, etc [7]. This warrants the need for a specialized care for women due to the complications in consideration of their coagulation deficiency factor level as well as their genetic history [8].

Such mind-body coordination therapy can be activated if we follow the principles of the Yogic way of life. It generally brings a positive effect on the health-related quality of life of individuals [9]. In relation to the hemophilic population, the probability of the positive effects of yoga not only increases the quality of life but also decreases the frequency of bleeding episodes and hospital referrals without many complications [10].

Therapeutic principles of yoga, upon practicing with an unwavering mind can help to create a sustained life with positive energy and enjoyment [11]. The effective practices of yogic principles can affect physically by enhancing muscular strength, increasing body flexibility, improving cardiovascular as well as respiratory systems, increasing metabolic rates, great coordination within neuromuscular activities, and mentally by reducing situations of stress, anxiety depression, recoveries from addictions insomnia, pacifying pains, etc. The therapeutic principles in yoga have the power to alleviate the physiological, psychological, spiritual, and emotional pains and limitations and hence help every individual to build a state of calmness, state of awareness, and self-control to make changes in life perspective with full-fledged energy within the self for their well-being [12].

The healing principles of yoga therapy include four main principles namely holistic nature of the human body, unique needs of individuals, self-empowering nature, and quality of mind of the individual [11]. This multifactorial approach to yogic practices helps the practitioner in having mastery over their mental modifications with the help of the limbs namely asanas, breathing, meditation, along with intellectual introspection and emotional coping mechanisms and this can lead to improving efficacy in pain management due to stress [13]. Such practices can pacify the sympathetic nervous system and enhance the parasympathetic nervous system to achieve the union of mind body and soul [12].

Thus, Yoga can be used as a successful therapeutic intervention in improving lifestyle with successful results of improvements in health and wellbeing among individuals. But the success rates depend upon the willingness one shows towards spending their energy to get

optimized results and that too in home settings than outside class practices [14]. Among the individuals, women are found to be using the yogic principles more for the purpose of psychosocial adjustment and mindfulness [15]. Along with that, it is found to reduce the risk of chronic diseases among them. Thus, people especially women should participate and practice yoga in their daily life as it not only improves their well-being but also helps them to identify the self and the healing power within the self [16].

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