

Research Article

A randomized control study of yoga on anemic patients

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ABSTRACT

40 Anemic individuals aged between 15-40 years randomly were taken as subjects. They were trained for Trikonasana and its variations, Sarvangasana, Surya namaskara, Yoga mudras for 90 days under supervision of professional yoga trainers. Assessments of various parameters like Pulse rate, B.P, Hb%, were done before the training and after the training of 30th, 60th and 90th day with and without treatment. After yoga with treatment increases Pulse rate and Hb%, while BP was shown normal.

Keywords: Anaemia, Yoga without medicine, Yoga with medicine.

INTRODUCTION

Anaemia is a decrease in number of red blood cells (RBCs) or less than the normal quantity of hemoglobin in the blood.^{1,2} Most commonly, people with anemia report feelings of weakness, or fatigue, general malaise, and sometimes poor concentration. They may also report dyspnoea (shortness of breath) on exertion. In very severe anemia, the body may compensate for the lack of oxygen-carrying capability of the blood by increasing cardiac output. The patient may have symptoms related to this, such as palpitations, angina (if pre-existing heart disease is present), intermittent claudication of the legs, and symptoms of heart failure.

Yoga in India has being reputed to developed remarkable control over bodily functions and it provides one of the best means of self improvement and attaining once full potential. It is a combination of three main parts DHYAN, ASANAS and PRANAYAM. Anaemia is a condition in which haemoglobin concentration, or the

number of red blood cells, is below the defined level. Proper food, correct treatment and the practice of asanas & pranayama have proved very valuable for the production of hemoglobin and necessary elements in the blood in the pure form. Trikonasana^{3,4} and its variations, Sarvangasana,⁵ Surya namaskara,⁶ Yoga mudras⁷ are useful for purification of blood and increase of blood cells. This study was carried out to find out the Pulse rate, BP, Hb% changes with practicing of yoga in anemic patients with treatment and without treatment.

METHODS

The present study was conducted on 40 anemic patients selected randomly. In that age group between 15-40 years, male and females equal in number (20+20), there is no major underlying diseases, Hb% ranges from 8-10g/dl, who were anemic and attended yoga classes for maintenance of health only. They were attending yoga classes for 90 days in professional yoga centers in Anantapuram city Andhra Pradesh state in India. Every

subject was trained by professional yoga trainers with the asanas of Trikona and its variations, Sarvanga, Surya namaskara and Yoga mudra everyday for one hour in morning (5am. to 6am.). The subjects are divided into two groups. Group-I (20 individuals): Yoga without any treatment. Group-II (20 individuals): Yoga with treatment of Iron (Ferrous sulfate 200mg) t.i.d,⁸ and Folic acid 2mg o.d.

These subjects were investigated for various parameters like Pulse rate, Blood pressure and Hb% before and after the training of yoga, with treatment and without treatment on 30th, 60th and 90th day. The professional classes had a particular pattern of yoga practices throughout the training. The pulse rate is counted and noted per one

minute. Blood pressure is measured by using mercuric sphygmomanometer⁹ and Hb% is measured by using with Sahli's haemometer.

RESULTS

After three months duration of all anemic patients shown various beneficial results like pulse rate, blood pressure and Hb%. The Hb% is increased so much with treatment of Iron and folic acid along with yoga practice. All results were mentioned as mean and slandered error mean (mean ± SEM).

Table 1: BP= Blood Pressure, Hb= Haemoglobin. Results mentioned as a (mean ± SEM).

Before Yoga Practice	After yoga practice						
	Without any Medication			With Medication			
	30days	60days	90days	30days	60days	90days	
Pulse rate/min.	64 ± 3	64 ± 2	66 ± 2	72 ± 4	66 ± 4	68 ± 6	76 ± 2
BP (mmHg)	112/80 ± 4/2	115/82 ± 2/2	118/80 ± 2/3	120/80 ± 2/5	123/86 ± 2/3	120/82 ± 2/3	125/84 ± 2/4
Hb%	7 ± 2	7 ± 3	8 ± 2	9 ± 2	8 ± 2	10 ± 2	12 ± 3

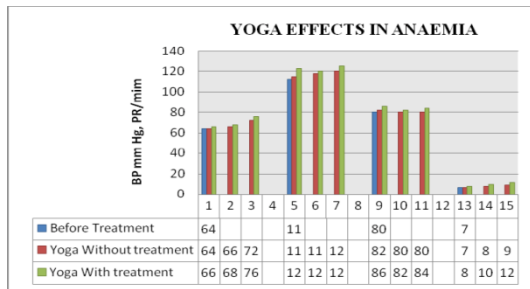


Figure 1: Effect of yoga on anemic patients with treatment and without treatment.

DISCUSSION

This study was carried out to evaluate the haematological benefits of yoga training in anemic patients. As shown in above table among 40 subjects the pulse rate, Blood pressure and Hb% was increased in 35, almost in 87.5% subjects. The reason for increased red blood cell count can be explained by two different mechanisms; it may be due to hypoxia that release more erythropoietin during yoga practices and second is that yoga practices increased release of iron stores from reticulo endothelial cells and splenic contraction enhance the release of reserved RBCs.

The average Pulse rate before yoga was 64/minute and after training it increased to 72/minute. Blood pressure values are not that many variations in individuals. Among 40 subjects the Hb% was found to increase in 37 subjects after the yoga training. Effect of yoga with iron, folic acid taken patients shown increased Hb% when we compare to yoga without taking any treatment in anemic patients.

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