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BENEFICIAL EFFECT OF CAROTID SINUS MASSAGE

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ABSTRACT

This study is designed to see the change on heart rate after the carotid sinus massage. The normal person taken as a subject for this study. The subject asked to lie down, with fully extended and the head turned away from the side being massaged. The radial pulse was recorded. Then gently touches the carotid sinus on one side for 5 seconds. The massage will repeated on other side. The radial pulse was recorded again. The pulse rate dropped from 73.4 ± 7.7 to 64.1 ± 8.3 (Figure 2). The change is significant at $p < 0.001$. The subject experiences joy as ever existing, everconscious and ever new bliss.

INTRODUCTION

Carotid sinus massage:

It is firm rotatory pressure applied to one side of the neck over the carotid sinus, causing vagal stimulation and used to slow or terminate tachycardia

OBJECTIVE:

To show carotid sinus reflex slows the heart action giving rest to the vital organ.

METHODS

The normal person taken as a subject for this study. The subject asked to lie down, with fully extended neck and the head turned away from the side being massaged. The radial pulse was recorded. The doctor gently touches the carotid sinus on one side for 5 seconds. The carotid sinus is between the angle of the mandible and the superior border of thyroid cartilage at the bifurcation of common carotid artery which is situated in the tunica adventitia of

common carotid artery (figure 1). The carotid sinus massaged firmly with a gentle rotating motion. It has been described as the amount of pressure needed to indent a tennis ball and should last five seconds. After massaging on one side the massage will repeated on other side.[3,4]. Both sides of the neck are never massaged at same time. The radial pulse was recorded.

RESULT

The pulse rate dropped from 73.4 ± 7.7 to 64.1 ± 8.3 (Figure 1). The change is significant at $p < 0.001$. The subject experiences joy as ever existing, everconscious and ever new bliss.

DISCUSSION

Calmness is essential control of the heart. Estimating four ounces the amount of blood expelled by each contraction of the two ventricles of the heart, the weight of

blood output during one minute will amount to eighteen pounds[1,2]. In a day it will be about twelve tons, in a year, four thousand tons. These figures indicate the enormous amount of labor performed by the heart. Many persons believe that rest is received by the heart during diastolic period of expansion, totaling about nine hours out of twenty four each day. This period is not true rest; it is only preparation for the systolic movement. The vibrations caused by the contraction of the ventricle reverberate through the tissue of the heart during its relaxation; hence the heart is not at rest. The carotid sinus massage involves rubbing the large part of arterial wall at the point where the common carotid artery, located in the neck divides into its two main branches. Rubbing of carotid sinus stimulates an area in the artery wall which contains nerve endings[7,8]. It is cause carotid sinus reflex. The afferent nerve of the reflex is the carotid sinus nerve or the buffer nerve, a function served by the glossopharyngeal reflex. The integrating mechanism is the medulla, the switch board. The efferent pathway for the carotid sinus reflex is sub served by the vagus nerve (Figure 3). The vagus nerve is the parasympathetic nerve supply to the heart. These nerves respond to changes in blood pressure and are capable of slowing the heart rate.[5,6] The response to this simple procedure often slows a rapid heart rate (for example, atrial flutter or atrial tachycardia) and can provide important diagnostic information to the physician. Carotid sinus massage will slow the heart rate during episodes of atrial flutter, fibrillation, and some tachycardia. It has been known to stop the arrhythmia completely.

IMPLICATIONS:

Carotid sinus massage will slow the heart rate during episodes of atrial flutter, fibrillation, and some tachycardias. It has been known to stop the arrhythmia completely. If the procedure is being done to help diagnose angina pectoris, massaging the carotid sinus may make the discomfort go away. The carotid sinus reflex slows the heart action giving rest to this vital organ. It stops decay in outer and inner organs, the calming effect on the heart switches off the energy in the five senses – telephones of touch, taste, hearing and sight. It also reduces breathing to a minimum. Hence its repeated use is conducive to longevity. It helps soothes and gives rest to nerves. It frees the mind, or attention to concentrate on any particular problem. It destroys the identification of soul of the soul with the breath and body. The subject experiences joy as ever existing, ever conscious and ever new bliss.[1,2]. The heart of a mouse in a mouse trap beats two times faster than usual because of its intense fear. The hearts of calm napolean and the duke of Wellington are said to have beaten only fifty times per minute. Save the heart from overwork, fear and anger overtax it. Give rest to the heart and cultivate a peaceful attitude of mind.

APPLICATIONS:

To slow the heart rate during episodes of atrial flutter, fibrillation..

To stop the arrhythmia completely

CONCLUSION

It stops decay in outer and inner organs, enabling the body cells to brim over with life force. The calming effect on the heart switches off the energy in the five sense-telephones of touch, taste, hearing and sight. It also reduces breathing to a minimum. Hence its repeated use is

conducive to longevity. It helps soothes and gives rest to the nerves. It frees the mind, or attention to concentrate on any particular problem. It destroys the identification of the soul with the breath and body. The subject experiences joy as ever existing, ever conscious and ever new blis

REFERENCES

1. Sri Sri paramahansa yogananda. God talks with Arjuna. The Bhagavad-Gita. Royal science of God – realization. The immortal dialogue between soul and spirit. 2002, chapter IV: Verse 29 page 496-507.
2. Sri Sri Paramahansa yogananda. Scientific healing affirmations. Theory and practice of concentration 2002, chapter 3 Healing Body , mind and soul page 19-21.
3. McIntosh SJ, Lawson J, Kenny RA. Clinical vasodepressor, cardio inhibitory and mixed carotid sinus syndrome in the elderly. *Am J Med* 1993; 95:203-208.
4. Huang SKS, Ezri MD, Hauser RG, et al. Carotid sinus hypersensitivity in patients with unexplained syncope: clinical, electrophysiological and long term follow up observations. *Am Heart J* 1988; 116; 989-996.
5. Crilley JG, Herd B, Khurana CS, et al. Permanent pacing in elderly patients with recurrent falls, dizziness and syncope, and a hypersensitive cardio inhibitory reflex. *Postgrad med J Cardiol* 1997; 73: 415-418
6. Morley CA, Sutton R. Carotid sinus syncope [editorial]. *Int J Cardiol* 1984; 6:287-293. Dey AB, Bexton RS, Tynan MM, et al. The impact of a dedicated 'syncope and falls' clinic on pacing practice in northeastern England. *PACE* 1997; 20: 815-817.
7. Parry SW, Ricardson DA, O 'shea, D, et al. Diagnosing carotid sinus hypersensitivity in unexplained falls and syncope: carotid sinus massage upright is essential.[abstract] *Heart* 1998;59 (Suppl 1) :p 17.
8. Davies AJ, Kenny RA. Frequency of neurological complications following carotid sinus massage. *Am J cardiol* 1998;81:1256-1257.

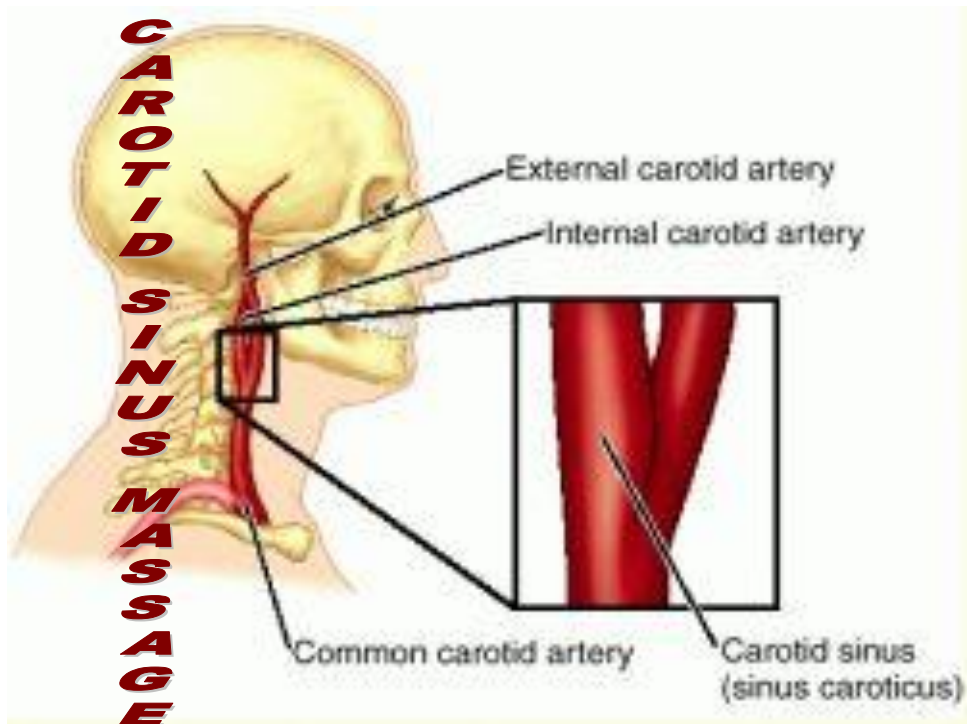


Figure 1

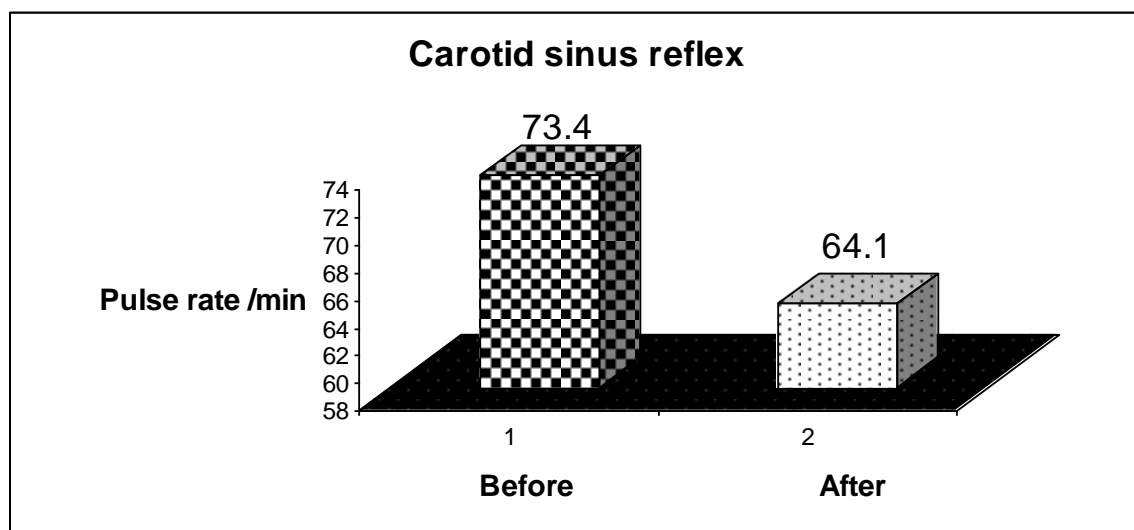


Figure 2

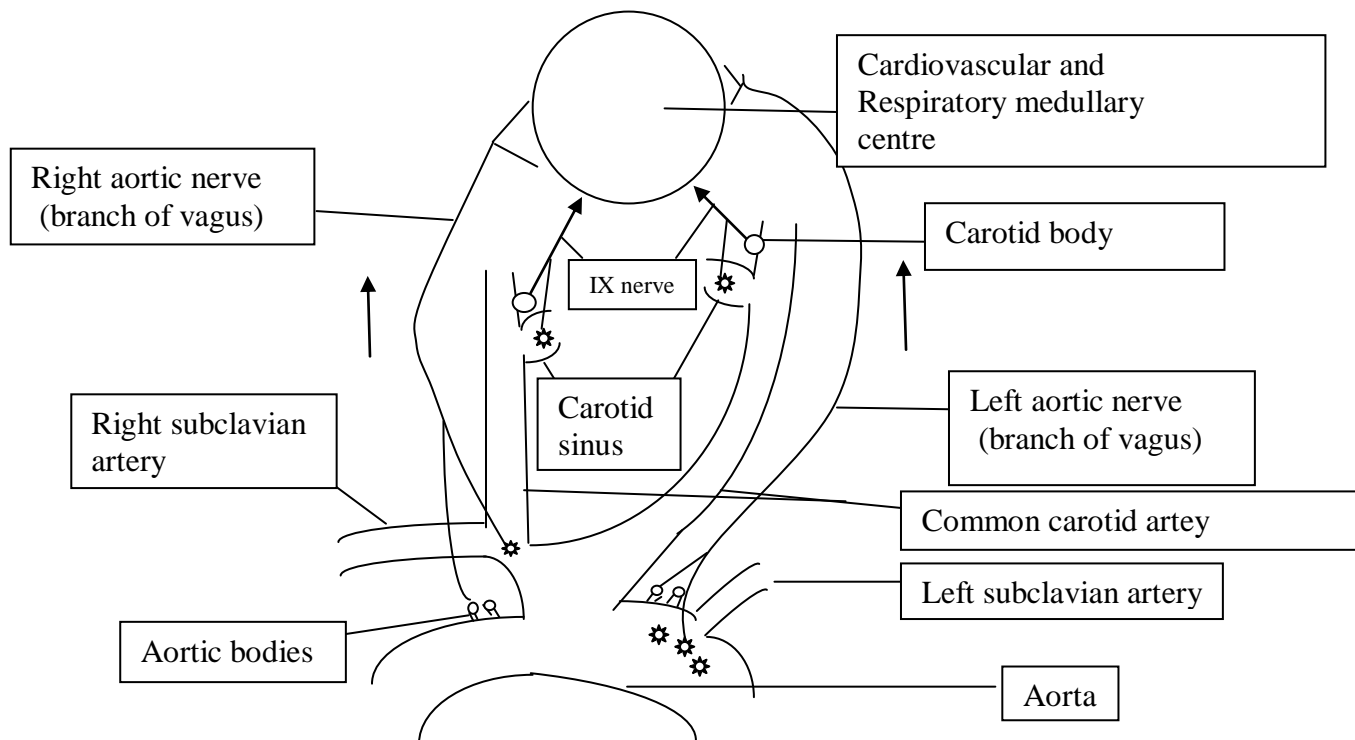


Figure 3. Schematic Diagram of Physiology of Carotid sinus Reflex