

## **Postural Orthostatic Tachycardia Syndrome (POTS) About 50 Cases : Experience of the Cardiology Department of the Ibn Sina University Hospital in Rabat**

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### **Introduction**

POTS results in the development of Orthostatic Intolerance (OI) symptoms associated with an increase in Heart Rate (HR) of more than 30 Beats Per Minute (BPM) from baseline HR or an increase in HR greater than a value of 120 bpm, during the first ten minutes of orthostatism. [1].

This is the most frequent dysautonomia in young subjects characterized by the sudden onset of multiple somatic complaints that are recurrent over more than 6 months. These complaints are triggered by orthostatism and decrease or even disappear with recumbency [2,3].

### **Methods**

This is a mono-centric observational retrospective study carried out in the cardiology department A of the Ibn Sina University Hospital in Rabat, including 50 patients with functional signs of orthostatic intolerance (OI) for more than six months. They all benefited from an exploration of the autonomic nervous system including Deep Breathing (DB), Hand-Grip (HG), Mental Stress (SM) and orthostatic tests.

### **Results**

-The average age was 35 years with extremes of 8 years to 79 years.

-This series included 50 cases including 29 women and 21 men.

-The functional symptoms reported by the patients were varied: signs of orthostatic intolerance: feeling of empty head, tremors and dizziness, discomfort upon rising in the morning; cardiovascular signs: dyspnea, palpitations, atypical chest pain, excessive tiredness ; neurological and gastrointestinal disorders: postprandial discomfort .

-POTS analysis showed an increase in heart rate of more than 30 beats / min relative to the state of peripheral beta sympathetic hyperactivity. The onset of heart rate elevation occurred before the second minute in 38 patients.

-The increase in HR was maintained throughout the test in 12 patients. Analysis of the orthostatic test showed vagal hyperactivity in 81% of patients.

-No case of vagal deficiency was found in our series during this test. Central sympathetic alpha activity was increased in 70% of cases and beta in 88% of cases. Analysis of the response to sympathetic alpha stimulation during the manual pressure test

revealed that 65% of patients had peripheral alpha hyperactivity. This activity was reduced in 25% of patients, and normal in 40% of patients.

### **Discussion**

The Autonomic Nervous System (ANS) is an automatic control system triggered by the severe stress generated by standing.

The alteration of the SNA functions can lead to orthostatic intolerance, the most common form is POTS.

This dysautonomia is characterized by various symptoms accompanied by excessive tachycardia during standing, which can be exacerbated by the actions of daily living. The same results were found in the study by Benjelloun H and AL [1].

### **Conclusion**

POTS produces dysfunction of the autonomic nervous system, but the pathophysiological mechanisms implicated are to this day an enigma. On the other hand, because it is little known, it is under-identified . We do not have reliable statistics on the prevalence of this syndrome. The treatment requires a multidisciplinary approach and is based on hygienodietetic measures. Despite this, the impact of POTS on quality of life is major. A reorganization of daily life is essential.

## References

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