SISTEMA DE CONTROL ATENCIONAL EN PACIENTES PRESINTOMÁTICOS CON ENFERMEDAD DE HUNTINGTON

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RESUMEN

La atención como constructo teórico ha estado siempre inmersa en una heterogeneidad de planteamientos y posturas encontradas. Ello ha generado abundante controversia, que ha impedido unificar de forma específica su definición y conceptualización. Incluso, en la actualidad existen dificultades para elegir una sola forma de entender esta función cerebral. La enfermedad de Huntington la cual, debido a su singularidad y el deterioro a nivel cerebral y cognitivo que genera en los pacientes, ha sido bastante estudiada en diferentes partes del mundo. De acuerdo a la revisión de los antecedentes, en esta patología los primeros signos de alarma

que se presentan están relacionados con la parte motora, la planificación a nivel construccional y la impulsividad.
La presente investigación tuvo como objetivo establecer las características del Sistema de Control Atencional en relación con la expansión de la repetición de la tripleta CAG del gen IT15 en pacientes presintomáticos con la enfermedad de Huntington, para cumplir con este objetivo se identificaron las características del Sistema de Control Atencional en los pacientes presintomáticos y en segunda instancia se comparó el estado del Sistema de Control atencional con la expansión de repeticiones del triplete CAG.

Para ello se diseñó un estudio con corte transversal descriptivo-comparativo con enfoque cuantitativo, con la participación de una muestra de 76 pacientes presintomáticos con la enfermedad de Huntington oriundas de Juan de Acosta, un municipio del Atlántico donde se reportan la mayor cantidad de casos de Huntington del país, los cuales fueron divididos en dos grupos denominados grupo 0 (integrado por 65 pacientes cuya expansión del triplete CAG estuvo entre 12 a 39 repeticiones). Y grupo 1 (integrado por 11 pacientes cuya expansión del triplete CAG estuvo de 40 repeticiones en adelante). Los test seleccionados fueron Subtest de la Escala de Inteligencia WAIS IV (Retención de Dígitos Vocabulario, Aritmética, Búsqueda de Símbolos y Claves), el Test de copia y reproducción de la Figura compleja de Rey y el Test de STROOP.

El proceso de evaluación se llevó a cabo en los laboratorios de investigación de la Universidad Simón Bolívar de Barranquilla. Cabe aclarar, que este estudio es un apoyo a otro macroproyecto investigativo nombrado identificación de marcadores tempranos de tipo neurológico, neurofisiológico, neurocognitivo y neuropsiquiátrico en población presintomática con riesgo de enfermedad de Huntington en el departamento del Atlántico de la Universidad Simón Bolívar de Barraquilla, el cual está siendo realizado por el grupo de investigación Neurociencias del Caribe.

En cuanto a los resultados obtenidos en relación al rendimiento cognitivo que muestran los pacientes presintomáticos con la enfermedad de Huntington en los Subtest de la Escala de inteligencia WAIS IV (Retención de Dígitos, Vocabulario, Aritmética, Búsqueda de Símbolos y Claves) en ninguno de los casos arroja diferencias significativas entre la ejecución del grupo 0 y la ejecución del grupo 1, en el Test de copia y reproducción de la Figura compleja de Rey existen diferencias significativas entre el grupo 0 y el grupo 1, en la ejecución de la tarea de copia, en los restantes índices del test no existen diferencias significativas en la ejecución de ambos grupos, en el Test de STROOP: Palabras, Color, Palabra-color e Interferencia. En los tres primeros índices se observó diferencias en los valores de

media y desviación estándar. Sin embargo, en el último índice: Interferencia, se observa una diferencia marcada de valores, lo cual, es expresión de la existencia de diferencias significativas entre el grupo 0 y el grupo 1, en la ejecución de la tarea de interferencia.

Los resultados obtenidos no muestran de modo general, marcadas diferencias que se puedan hipotetizar en cuanto al Sistema de Control Atencional y su asociación al número de repeticiones de la expansión del triplete CAG (citosina-adenina-guanina) en el gen HTT o IT15 del brazo corto del cromosoma 4p16.3. No obstante, no haber obtenido los resultados que se deseaban, no cambia que el valor de estos resultados, y del estudio en general conduce a otros caminos no menos relevantes, debido a que los resultados arrojados en este estudio como son el aspecto visual, los componentes viso-construccionales y las diferencias encontradas en la parte de interferencia son elementos para tener en cuenta en población presintomática de la enfermedad de Huntington y debido a que si se sigue con estudios relacionados a estos aspectos se pueden llegan a identificar como predictores de la enfermedad.

Palabras clave: Sistema de control atencinal, Huntington, viso-construccionales impulsividad, presintomáticos, triplete, expansión.

ABSTRACT

Attention as a theoretical construct has always been immersed in a heterogeneity of approaches and conflicting positions. This has generated abundant controversy, which has prevented a specific unification of its definition and conceptualization. Even today there are difficulties in choosing a single way of understanding this brain function. Huntington's disease which, due to its uniqueness and the brain and cognitive impairment it generates in patients, has been extensively studied in different parts of the world. According to the review of the antecedents, in this pathology the first warning signs that appear are related to the motor part, planning at a constructive level and impulsivity.

The objective of this research was to establish the characteristics of the Attention Control System in relation to the expansion of the CAG triplet repeat of the IT15 gene in presymptomatic patients with Huntington's disease, to meet this objective the characteristics of the Control System were identified. Attentional Control in presymptomatic patients and secondly, the state of the Attentional Control System was compared with the expansion of CAG triplet repeats.

For this, a descriptive-comparative cross-sectional study with a quantitative approach was designed, with the participation of a sample of 76 pre-symptomatic patients with Huntington's disease from Juan de Acosta, a municipality in Atlántico where the largest number of cases of Huntington's disease in the country, which were divided into two groups called group 0 (made up of 65 patients whose CAG triplet expansion was between 12 to 39 repeats). And group 1 (made up of 11 patients whose CAG triplet expansion was 40 repetitions and up). The tests selected were the Subtest of the WAIS IV Intelligence Scale (Vocabulary Digit Span, Arithmetic, Search for Symbols and Keys), the Rey Complex Figure Copy and Reproduction Test, and the STROOP Test.

The evaluation process was carried out in the research laboratories of the Simón Bolívar University of Barranquilla. It should be noted that this study supports another research macro-project named identification of early neurological, neurophysiological, neurocognitive and neuropsychiatric markers in a pre-symptomatic population at risk of Huntington's disease in the Atlántico department of the Simón Bolívar University in Barraquilla, the which is being carried out by the Neurosciences of the Caribbean research group.
Regarding the results obtained in relation to the cognitive performance shown by presymptomatic patients with Huntington's disease in the Subtest of the WAIS IV Intelligence Scale (Digit Span, Vocabulary, Arithmetic, Search for Symbols and Keys) in none of the cases shows significant differences between the execution of group 0 and the execution of group 1, in the Copy and Reproduction Test of Rey's Complex Figure there are significant differences between group 0 and group 1, in the execution of the copy task , in the remaining test indices there are no significant differences in the execution of both groups, in the STROOP Test: Words, Color, Word-color and Interference. In the first three indices, differences were observed in the mean and standard deviation values. However, in the last index: Interference, a marked difference in values is observed, which is an expression of the existence of significant differences between group 0 and group 1, in the execution of the interference task.

The results obtained do not show, in general, marked differences that can be hypothesized in terms of the Attentional Control System and its association with the number of repeats of the expansion of the CAG triplet (cytosine-adenine-guanine) in the HTT or IT15 gene of the arm. short of chromosome 4p16.3. However, not having obtained the desired results does not change the value of these results, and the study in general leads to other no less relevant paths, because the results obtained in this study, such as the visual aspect, the visuo-constructional components and the differences found in the interference part are elements to take into account in the

pre-symptomatic population of Huntington's disease and because if studies related to these aspects are continued, they can be identified as predictors of the disease .

Key Words: Attentional control system, Huntington, visuo-constructional, impulsivity, presymptomatic, triplet, expansion.

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