178 - THE LONGEVITY IN THE DOWN SYNDROME

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The Down syndrome is a genetic disorder, and the first person who described about this chromosomal change was the doctor John Langdon Down, in 1866. The type more frequently of this syndrome is the tiresome (triplication) of the 21st chromosome (represents 95% of cases), and the other forms are translocation with the chromosomes (between 14th e 21st); and mosaics' with normal cells. Stray-Gundersen (2007) shows that the cells division can be occurred in one of three places: sperm cells, egg or in the first cell division after the fertilization; the last possibility is probably, so rare. It is estimated that in 20 to 30% of cases, the 21 chromosome extra came from a wrong cell division in the sperm cell (so, the chromosome extra is derivated of the father) and in 70 to 80% of cases the chromosome is derivated of the mother.

This statistic helps to say that the main reason for the Down syndrome (DS) is the advanced maternal age, because how long the time is passing, the possibility to an occurrence of a wrong cell division grows, since that the oocytes are more exposed to an ambiental problem.

Table 1 The increased chance of Down syndrome compared to maternal age.

The approximate risk to born a child with Down syndrome with mothers of some ages that never had a child with the chromosome alteration.		The approximate risk to born a child with Down syndrome with mothers of some ages that had a child with the chromosome alteration.	
The age of the mother when the child burned:	**The approximate risk to born a child with Down syndrome**	**The age of the mother when the child burned:**	**The approximate risk to born a child with Down syndrome**
Less of. 35 years	0,1%	Less of. 35 years	1,0%
From 35 to 39 years	0,5%	From 35 to 39 years	1,5%
From 40 to 44 years	1,5%	From 40 to 44 years	2,5%
Over 45 years	3,5%	Over 45 years	4,5%

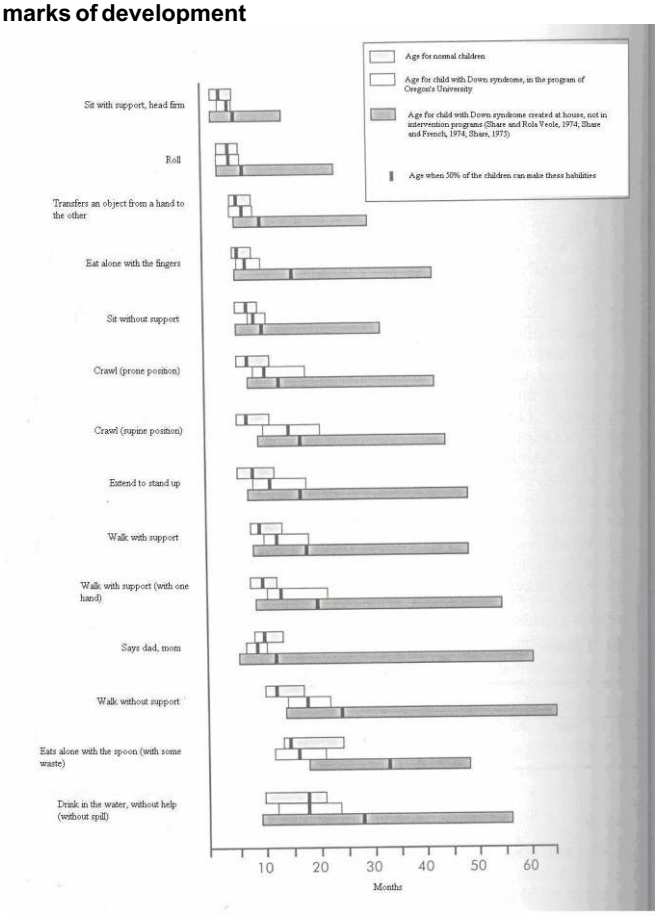
It's notorious that the immunologic system of who have Down syndrome is considerably weak. The alteration of the phagocyte sector in DS is directly proportional with the age.

[…] The morbidity by infection diseases is so high, and the respiratory infections are more common to happen. Other pathologies are associated with the syndrome, especially the heart diseases. Studies in the last decade say that the Down syndrome is a phrogeroid disease, and the early aging process is responsible for the immunologic alterations, auto-immune diseases and neoplasms in an early age comparing with the "normal" population. Many authors show alterations in all sectors of the immune answer, independently of the clinic expression of these alterations […]. (RIBEIRO et al, 2003, p.141).

The study by Ribeiro (2003) portrays that the respiratory infections meant a big problem for the children with Down syndrome, representing a cause that is the one of the most commons about early die with this group. However, actually with modern antibiotics and a specialized medicine, in general, the majority of respiratory infections can be treated with success. There are some characteristics with the bearer of Down syndrome that making him single, and create a contrast when they are in group of "normal" persons. These characteristics are: round face, salient cheeks, little hands and almond eyes. And also has difficult with the physical development, because muscle hypotonic, who commits the balance (an orthopedic problem happens more commonly in children with Down syndrome); and the poor muscle tone implies less weight.

Moreover, one notices that some types of leukemia and the reaction leukemodic have incidence increased in the syndrome of Down; the children with the syndrome frequently have more ocular problems; between 80% and 90% of "downs" they have some type of auditory loss; tyrodeans hormone deficiencies are more common in children with syndrome of Down of what in normal children; e many carriers of SD possess nutritionals riots. Ally to all these factors, the process of the aging appears more early. With regard to the nutritionals riots, about 30% of the children with syndrome of down them are classified by the standards of the OMS (World-wide Organization of the Health) as obese. It is noticed that one of the causes for this problem is the chromosome alterations, generating these riots. However, another great cause is the high level of sedentary on the part of "downs", therefore the orthopedics problems, the muscular hypotonic, amongst other peculiar physical characteristics they, makes with that he is of utmost importance the accompaniment all the moment of able professionals (physiotherapists, doctors, nutritionists, professors of Physical Education, amongst others) to assist in the excellent development of these children special. E the great majority does not have access to these cares. "The development of a child with syndrome of Down will be affected by its additional chromosome. Its genetic constitution establishes a preliminary plan for the development; it does not predetermine its final result. The genes are responsible for the deficiencies observed in the syndrome of Down; the growth and the learning, in set with psychological, cultural and ambient factors favorable, can help to reduce the impact of these deficiencies." (STRAY-GUNDERSEN, 2007, p.135) As it shows PUESCHEL (2003), is essential to assist the child with syndrome of down, since very early, to develop the interests and necessary abilities for the accomplishment of a variety of physical and recreational activities, as to play ball, to swim and to follow rhythms with the movement. The joy and satisfaction derived from the effective use of the body will contribute in the direction to become the future experiences of life of the child happiness.

Graph 1 Important marks of development



Source: Adapted from Stray-Gundersen (2007)

Actually some studies, like the made by CEPEC (Center of Studies and Clinical Research of Sao Paulo), shows the existence of individuals with Down syndrome that broke the wall of 50 and 60 years old, coming with the health word evolution, as well the brazilian. To have and idea, three decades ago the life expectancy of the bearer with Down syndrome was 40 years old, and in 20's decade this number was 9 and 10 years old.

Equally important, the health quality for these people improved a lot, because the evolution of clinic treatments, and now a lot of babies with Down syndrome grows up healthy and active. This information is so important, from the point that some literatures of this theme deal it as a disease. Actually, the prognostic is much better for the majority of babies.

Graph 2 Winning the childhood



Source: Adapted from Center of Studies and Clinical Research of Sao Paulo - CEPEC

Key Word: Down syndrome. Carrier. Longevity.

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THE LONGEVITY IN THE DOWN SYNDROME

Abstract

The Down syndrome was described for the first time in 1866 and, although the many evolutions that already had occurred, still is considered a recent discovery. Treatments, therapies and diverse forms of stimulation for the carrier of the syndrome have been developed, what it has been basic for its better motor development and magnifying of its social performance. The life expectancy in Brazil increased in recent years, exceeding the age band of 70 years, as main consequence of the constant evolution of the health, either in the national or international scope. The objective of this study was to analyze the longevity of the carriers of Down syndrome to verify if the life expectancy of this specific group follows the national trend of aging. For the accomplishment of this work, a literary revision was become fulfilled on the thematic one, through recent books and articles on the Down syndrome (DS). They had been gotten given excellent being that, some studies as the carried through ones for the CEPEC (Center of Studies and Clinical Research of Sao Paulo), demonstrate the existence of carriers of DS who had exceeded the 50 and 60 years, following the improvement in the world-wide health in such a way how much the Brazilian. As parameter, given on the longevity of the carrier they point that the life expectancy was around 40 years, being that in the decade of 20, this perspective was scramble for 9 the 10 years. One concludes that the expectation for carriers of the Down syndrome increased even so not if it has stories of as either the relation longevity or quality of life for these people. Since the clinical treatments have reached resulted promising, the perception of quality of life of the carriers is intended to evaluate which a time that today babies whom syndrome of Down has, can grow healthy and active.

Key Word: Down syndrome. Carrier. Longevity.

LA LONGÉVITÉ DANS LE SYNDROME DE DOWN

Resume

Le syndrome de Down a été décrit pour la première fois en 1866 et, malgré des beaucoup d'évolutions qui déjà se sont produites, encore est considérée une découverte récente. Se sont développés des traitements, thérapies et diverses formes de stimulation pour le transporteur du syndrome, ce qui a été fondamental pour son meilleur développement moteur et élargissement de sa performance sociale. L'attente de vie au Brésil a augmenté ces dernières années, en dépassant la bande étaire de 70 ans, mange conséquence principale de l'évolution constante de la santé, soit dans le contexte national ou international. L'objectif de cette étude a été analyser la longévité des transporteurs de syndrome de Down pour vérifier si l'attente de vie de ce groupe spécifique suit la tendance nationale de vieillissement. Pour la réalisation de ce travail, s'est réalisée une révision littéraire sur la thématique, à travers des livres et des articles récents sur le syndrome de Down. Ont été obtenues des données importantes en étant que, quelques études comme réalisés par CEPEC (Centre d'Études et Recherches Cliniques de São Paulo), démontrent l'existence de transporteurs de syndrome de Down qui ont dépassé les 50 et 60 années, en accompagnant l'amélioration dans la santé mondiale de telle façon combien la Brésilienne. Comme paramètre, des données sur la longévité du transporteur indiquent que l'attente de vie était autour de 40 ans, en étant que dans la décennie de 20, cette perspective se réduisait pour 9 à 10 ans. Il se conclut que l'attente pour transporteurs du syndrome de Down a augmenté bien qu'il n'ait pas d'histoires de comme c'est la relation longévité et qualité de vie pour ces personnes. Vu que les traitements cliniques ont atteint des résultats prometteurs, la perception prétend être évaluée ce que de qualité de vie des transporteurs vu qu'aujourd'hui des bébés lesquels a syndrome de Down, peuvent grandir sains et actifs.

Mots-clés: Syndrome de Down. Transporteur. Longévité.

LA LONGEVIDAD EN SÍNDROME DE DOWN

Resumen

El síndrome de Down fue descrito por primera vez en 1866 y, aunque las muchas evoluciones que habían ocurrido ya, todavía se consideran un descubrimiento reciente. Los tratamientos, las terapias y las formas diversas de estímulo para el portador del síndrome se han desarrollado, cuál ha sido básico para su desarrollo del motor y magnificar mejores de su funcionamiento social. La esperanza de vida en el Brasil aumentó estos últimos años, excediendo la venda de edad de 70 años, como consecuencia principal de la evolución constante de la salud, en el alcance nacional o internacional. El objetivo de este estudio era analizar la longevidad de los portadores del síndrome de abajo para verificar si la esperanza de vida de este grupo específico sigue la tendencia nacional del envejecimiento. Para la realización de este trabajo, una revisión literaria fue convertida en la temática, a través de los libros y de los artículos recientes sobre el síndrome de abajo. Habían sido conseguidos ser excelente dado ése, algunos estudios como llevados con unos para el CEPEC (centro de estudios y de la investigación clínica de São Paulo), demuestran la existencia de los portadores del síndrome de abajo quiénes habían excedido los 50 y 60 años, siguiendo la mejora en la salud mundial de tal manera cuánto el brasileño. Como parámetro, dado en la longevidad del portador que señalan que la esperanza de vida era alrededor 40 años, estando ésa en la década de 20, esta perspectiva estaba

para 9 los 10 años. Uno concluye que la expectativa para los portadores del síndrome abajo de aumentado sin embargo no si tiene historias como de cualquier la longevidad de la relación y la calidad de la vida para esta gente. Puesto que los tratamientos clínicos han alcanzado la promesa resultante, la opinión de la calidad de la vida de los portadores se piensa para evaluar cuál una época que hoy los bebés a que el síndrome de abajo tiene puede para crecer sano y activo.

Palabra clave: Síndrome de Down. Portador. Longevidad.

A LONGEVIDADE NA SÍNDROME DE DOWN

Resumo

A síndrome de Down foi descrita pela primeira vez em 1866 e, apesar das muitas evoluções que já ocorreram, ainda é considerada uma descoberta recente. Têm-se desenvolvido tratamentos, terapias e diversas formas de estimulação para o portador da síndrome, o que tem sido fundamental para seu melhor desenvolvimento motor e ampliação de sua atuação social. A expectativa de vida no Brasil aumentou nos últimos anos, ultrapassando a faixa etária de 70 anos, como conseqüência principal da evolução constante da saúde, seja no âmbito nacional ou internacional. O objetivo desse estudo foi analisar a longevidade dos portadores de síndrome de Down para verificar se a expectativa de vida desse grupo específico segue a tendência nacional de envelhecimento. Para a este trabalho foi elaborada a revisão literária sobre a temática, através de livros e artigos recentes sobre a síndrome de Down. Os dados obtidos considerados relevantes, apesar de alguns estudos como os realizados pelo CEPEC (Centro de Estudos e Pesquisas Clínicas de São Paulo), demonstram a existência de portadores de síndrome de Down que ultrapassaram os 50 e 60 anos, acompanhando a melhoria na saúde mundial tanto quanto a brasileira. Como parâmetro, dados sobre a longevidade do portador apontam que a expectativa de vida era em torno de 40 anos, sendo que na década de 20, essa perspectiva reduzia-se para 9 a 10 anos. Conclui-se que a expectativa para portadores da síndrome de Down aumentou embora não se tenha relatos de como seja a relação longevidade e qualidade de vida para essas pessoas. Visto que os tratamentos clínicos têm alcançado resultados promissores, pretende-se avaliar qual a percepção de qualidade de vida dos portadores uma vez que hoje bebês que tem síndrome de Down, podem crescer sadios e ativos.

Palavras-chave: Síndrome de Down. Portador. Longevidade.