# 145 - INTERVENTION OF PHYSICAL EDUCATION WITH PATIENTS WITH MEDULLAR INJURY THE TRANSUBJECT TEAM IN THE UNIVERSITY HOSPITAL OF MANAUS.

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## DELIMITING THE PROBLEM

The Medullar Injury is significant a neurological damage through the bruise, stretching, or crushing of the marrow by means of an applied indirect intense force to the vertebral column (MAROTTA, 1997). It is characterized for neurovegetativos riots of the located corporal segments below of the injury for alterations of the matricide, superficial and deep sensitivity, and the vital functions as the locomotion, sexuality, urinary and intestinal system and of the independent nervous system. Being able to cause a series of psicossociais alterations the individual. Besides consisting in a true challenge the whitewashing (LIANZA, 2001).

The number of tetraplegics or paraplegics people for injury of the spinal marrow comes increasing significantly in the last decades. According LIANZA (2001)"this dramatic increase must mainly traumatic injuries (80%) provoked by wound of projectiles of firearm, automobile accidents, sports and falls".

The Physical Education, together with other professionals, comes contributing to help the people with injury to medullar to be independent, showing to them that they continue being productive and that they can carry through many of the activities that developed before the accident. What they need is to adapter it its new condition, thus contributing for one better quality of life. CASALIS (2001) affirms that only developing its internal wealth the injured one to medullar will be able to reach the most complete physical and psychological readjustments, reacquired its capacity of living and working. Therefore, the difficulties found for the deficient one that it searches active and productive a life are many and as it affirms Vaitsman.

"The deficient one has that to prove to the others that it is an equal person to any another one, although its deficiency. It has difficulty in being a simple citizen - the deficient one is not nor invalid, nor life example, but yes an equal person to any another one. To be integrated the society the deficient one needs to participate of it e, also to feel the society enclosed ".

Agree to what CRESPO said that:

"If to consider that for each one of these people at least three others (relatives, friends, professionals of the area of the health, ground handling equipment suppliers etc) directly involved and/or interested in the subject exist, will verify that practically 1/3 of the Brazilian population are, in greater or minor degree, of a form or another one, affected for the questions that say respect to the people with deficiency".

Being thus, in contrast of that if she could imagine, much people if interest in collaborating in (re)educes/(re)adaptec of the injured one to medullar, providing inclusion chances.

To long of history the physical activity always she was present in the routine of the humanity always associated to a time style. However, the concern in promoting the activity is recent physical for injured medullar. As it said HIPÓCRATES cited for PORTO (2004).

"All part of the body will become healthy, developed well and with slow aging if exercised; however, if they will not be exercised, such parts they will become susceptible the illnesses, deficient in the growth and will age precociously ".

## METHODS

For the development of this work forms of evaluation of pupils had been analyzed who had been part of the activities of the Program of Deficient Motor Activities for - PROAMDE, in the composed HUGV for a team to transdisciplinar (Neurologist, Urologist, social Service, Psychology, Physical Education, Nutrition, nursing and Physiotherapy). In a period of 2 years and way, divided in 11 groups, with attendance the, Tuesdays and Thursdays, with duration measured of 27 days for each group. The participants of this research are 30 students who had concluded the period of activities in accordance with considered by the PROAMDE, being the criteria of inclusion and exclusion, being 23 paraplegics and 07 tetraplegics, of these 93.3% are of masculine sex and 9,7 of the feminine sex. The main cause of injury of this group is the traumatic one with 93,3% of the cases, with bigger incidence for fall (33,3%) and perforation for firearm (23,3%).

The adopted criteria of inclusion for the election of the participants had been: a) student of 2a stage of the PROAMDE, b) to have injury to medullar c) conclude the period of activities of the PROAMDE, and the criteria of exclusion: a) not to have concluded the period of activities of the PROAMDE, to b) tetraplegic with high injury above of C5, c) it's not injured to medullar.

Initially we carry through survey of the fiches of the pupils taken care of in 2a stage of the PROAMDE, getting a total of 44 students, of which 07 had not concluded the period programmed for each group, 02 were tetraplegics with high injury above of C5, 04 still are in the period of activities, 01 was not injured to medullar and 30 are the ones that are part of the research. After that we remove of the evaluation fiche, only the necessary data for research and create a new fiche. After comparison of the data was carried through analyzes statisticians of quantitative form to observe possible learning in items: handling in chair of wheels (7 items), transference (9 items) and mobility in the mattress (8 items). Using as criteria for the tasks the pointers: "it carries through", "does not carry through" and "it carries through with aid", being that to be admitted in the categories "it carries through" and "does not carry through", had that to execute all items, or either, not to carry through none or to carry through all.

The fiches of evaluation of the program had been used and a bred fiche specifies to compare the data.

## RESULTS AND QUARRELS

In relation to the handling in chair of wheels, it appears 1 had a 46,7% learning, therefore, in the initial evaluation, 66.7% of the students did not carry through all items of the handling and 23.3% carried through with aid. To the end it had a reduction of 60% of the students who did not carry through the handling; therefore, only 6.7% had continued not carrying through some item, being that these students are people above of 60 years, with who had been emphasized other aspects, as: locomotion, correct brake, to go up and to go down small slopes. Still in this item 6,7% of the pupils they had not been evaluated by having high cervical injury (C5), emphasizing other aspects to improve its day-day, and 3.3% did not consist in none of the pointers, therefore items of the 3 handling carried through 5 and items did not carry through.

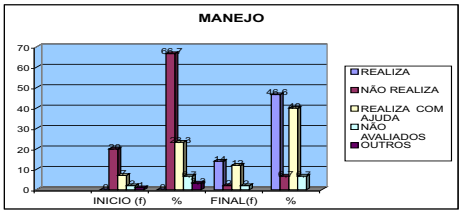


**Figure 1** - Handling in chair of wheels: injured to medular

In the item transference, figure 2 observes an increase of 30% in numbers it of students who had started to carry through all items of this task. E a 43,4% reduction of that it did not carry through, therefore in beginning 46.7% did not carry through all items e, to the end, only 3.3% continues not carrying through, having this person more than 60 years and with spasms very intense. We had in this item 6,7% that they had not been evaluated by having high cervical injury (C5), with which was carried through work with I assist of board of transference and, 10% that they had not consisted in none of the pointers, for carrying through some items and not carrying

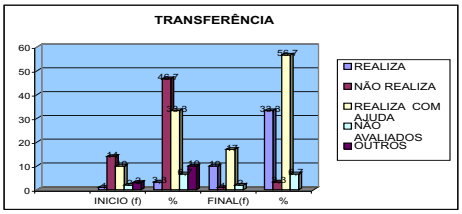


**Figure 2** - Transference: injured to medullar

In mobility in the mattress, it appears 3 all the evaluated pupils had started to carry through or to carry through with helping to all items of mobility. Having an increase of 33,4% in I number it of pupils who had started to carry through all items of the task, reducing, with this the pointers it does not carry through and it carries through with aid, where in the beginning it was of 3,3% and 43,3%, falling for 0% and 23,3% respectively. This had the percentile greater of students who had not been evaluated, 20%, having as bigger factors: high cervical injury (C5), intense spasms, high age and deep scabs.

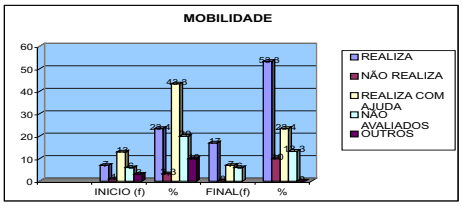


**Figure 3** - Mobility: injured to medullar

How much to the factor etiology of the injury to modular, figure 4. The majority of causes 33.3% had the fall, followed for automobile accidents and perforation for firearm both with 23,3%, which add 80% of the etiology of the searched students. Already the other accidents had been caused by diving, perforation for cutting weapon, tumor, tuberculosis and compression in the marrow. Fitting ample a more brief study and on the etiology of the injury to medullar, aiming at to carry through preventive campaigns, in the search of the reduction of these occurrences, since they are generated mainly by urban violence, if to add automobile accidents and perforations for firearm that are situations that can be prevented with politics publish and awareness of the population, to add sth up 46,6% of the cases. Observing the origin of the trauma, it appears 4 perceives that 93.3% of the injuries are of traumatic origin and 6.7% have not traumatic origin. Result that can compare with the studies of LIANZA (2001), where it tells that 80% of the injuries meddlers are of traumatic origin.

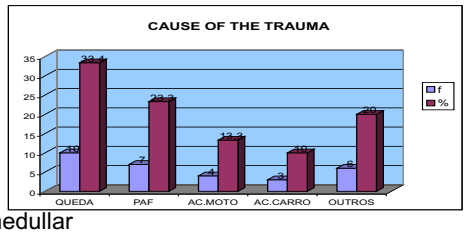


**Figure 4** - Etiology: injury to medullar

The average of age of the taken care of pupils is of 29 years and the biggest occurrence is between 20 and 29 years (50%), therefore presenting itself with bigger index in young adults, as it demonstrates the graph below.

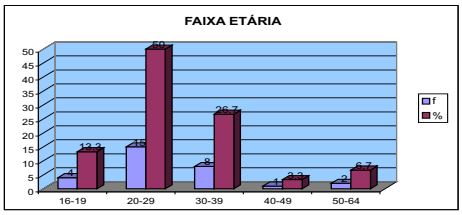


**Figure 5** - Etária band of the students of the research

Of the 30 students, to the end of stages, 09 they had learned all items considered in the evaluations of the research, 08 had needed aid, only, in the transference of the soil for the chair and, 07 are tetraplegics, leading in account that we had pupils with serious scab problem and spasms. The gotten results had evidenced one (the contribution of the Physical Education in) process teach-learning of new abilities functional injured to medullar it. Providing to bigger mobility in its tasks daily and making possible it more independence, therefore the simple act to go and to come, essential factor for great part of the tasks of a normal life and the exercise of the professional functions are engaged for these people.

**CONCLUSION**

With base in this study, we can infer that the Physical Education contributes significant in the new learning of the injured one to medullar, favoring its locomotion, helping in several other aspects as: auto-they mainly esteem, auto-confidence, sociabilização, discovered of potentialities and in the accomplishment of the daily activities, therefore to live in society becomes a bigger challenge for who has locomotion difficulty. To be active and to feel itself full becomes the confident individual in its possibilities. Therefore each one must give its contribution in the search of new forms to teach people with deficiencies if to adapter the new life, facilitating the development of its potentialities.

**INTERVENTION OF PHYSICAL EDUCATION WITH PATIENTS WITH MEDULAR INJURY THE TRANSUBJECT TEAM IN THE UNIVERSITY HOSPITAL OF MANAUS.**

**ABSTRACT**

People with medullar trauma suffer many deep changes in their lives, and go through an intense period of learning in order to be able to deal with their new characteristics. The changes will determine their new standard of life, so they need a rehabilitation e/or reeducation period for these new factors. Most of the times, because of the paraplegic or the tetraplegy, these people have to use wheel chairs. In order to adapt and have independence they need to aquire certain abilities for their daily lives. The objective of this study is to show the contribution of physical education in the necessary abilities for the independence of the patient with medular trauma; in the teaching of how to use the wheel chair, mobility in the matress and transference; in a transubject team of the Hospital Universitário Getulio Vargas (HUGV), in the period of 2003 to 2006. For that, 32 students with medular trauma were selected, 23 paraplegic and 7 tetraplegic, that were part of Programa de Atividade Motora para Deficientes (PROAMDE) of Universidade Federal do Amazonas (UFAM) The data that were aquired through the evaluations were statisticly analysed, and based on the analysis of the graphics, we got to the result of a 43,76% of complete learning of the Wheel chair (14 students pupils) in the item, 30% (09 students) in transferences and 33,3% (10 students) in mobility.

**KEY WORDS**: Medullar Injury, Abilities in chairs wheels, Readjustment

**INTERVENTION DE L'ÉDUCATION FISICA AVEC BLESSÉS MEDULARES DANS L'ÉQUIPE TRANSDISCIPLINAIRE DE L'HÔPITAL UNIVERSITARIO DE LA VILLE DE MANAUS**

**RÉSUMÉ**

Des personnes avec blessure medular souffrent changements profonds dans leur vie, en ayant qu'il passera par une période intense d'apprentissage pour pouvoir traiter avec ces nouvelles caractéristiques. Les changements iront déterminer de nouvelles normes de vie, en ayant besoin une période de réhabilitation etou rééducation de ces nouveaux facteurs. Dans à la majorité des fois, en fonction de la paraplegia ou de la tetraplegia, ces personnes se deviennent des utilisatrices de chaises roulantes. Pour s'adapter la nouvelle vie et avoir de l'indépendance ont besoin d'acquérir certaines des habilités pour vie quotidienne. L'objectif de cette étude est prouver la contribution de l'éducation physique dans les habilités nécessaires pour indépendance blessé medular; dans l'enseignement de maniement dans chaise roulante, mobilité dans le matelas et transferts; dans une équipe transdisciplinaire de l'Hôpital Universitaire Getulio Vargas (HUGV), dans la période de 2003 à 2006. Pour de telle façon ont été sélectionnés 30 élèves avec blessure medular après appliquée les critères d'inclusion et d'exclusion, en étant 76,7% paraplégicos et 23,3% tetraplégicos, ils qu'ont participé du Programme d'Activité Motrice pour Personnes handicapées (PROAMDE) de l'Université Fédérale de l'Amazone (UFAM). Les données acquises à travers les évaluations ont été analysées statistiquement, et sur base de il analyse des graphiques, nous avons obtenu comme en résultant un apprentissage total de 46.7% (14 élèves) dans l'item, maniement de chaise; 30% (09 élèves) dans le transfert et 33,3% (10 élèves) la mobilité.

**MOTS CLÉS** : Blessure medular, Habilités dans des chaises roues, rajustement

**INTERVENCIÓN DE LA EDUCACIÓN FÍSICA CON LESIONADO MEDULAR EN EL EQUIPO TRANSDISCIPLINAR DEL HOSPITAL UNIVERSITARIO DE LA CIUDAD DE MANAUS**

**RESUMEN**

Personas con lesión medular sufren cambios profundos en sus vidas, teniendo que pasar por un intenso periodo de aprendizaje para poder abarcar con esas nuevas características. Los cambios determinan nuevos padrones de vida, necesitando un periodo de rehabilitación y/o reeducación de estos nuevos factores. En la mayoría de las veces, en función de la paraplejía o de la tetraplejía, esas personas se tornan usuarias de sillas de ruedas. Para adaptarse a una nueva vida y tener independencia, necesitan adquirir ciertas habilidades para la vida diaria. El objetivo de ese estudio es evidenciar la contribución de la educación física en las habilidades necesarias para la independencia del lesionado medular en la enseñanza del manejo de una silla de ruedas, movilidad en el colchón y transferencias en un equipo transdisciplinar del Hospital Universitario Getulio Vargas (HUGV) en el periodo de 2003 a 2006. Para eso, fueron seleccionados 32 alumnos con lesión medular, después de aplicado los criterios de inclusión y exclusión. Dentro del grupo, 23 eran parapléjicos y 09 eran tetrapléjicos, que participaron de un Programa de Actividad Motora para Deficientes (PROAMDE) de la Universidad Federal del Amazonas (UFAM) Los datos adquiridos a través de las evaluaciones fueron analizados estadísticamente y con base en el análisis de los gráficos, obtuvimos como resultados un aprendizaje total de 43,76% (14 alumnos) en el ítem de manejo de silla y 28,12% (09 alumnos) en la movilidad y transferencias.

**PALABRAS CLAVE**: Lesión medular, Capacidades en ruedas de las sillas, reajuste

**INTERVENÇÃO DA EDUCAÇÃO FISICA COM LESADOS MEDULARES NA EQUIPE TRANSIDISCIPLINAR DO HOSPITAL UNIVERSITARIO DA CIDADE DE MANAUS**

**RESUMO**

Pessoas com lesão medular sofrem mudanças profundas em sua vida, tendo que passar por um período intenso de aprendizado para poder lidar com essas novas características. Essas mudanças irão determinar novos padrões de vida, necessitando um período de reabilitação e/ou reeducação destes novos fatores. Na maioria das vezes, em função da paraplegia ou da tetraplegia, essas pessoas se tornam usuárias de cadeiras de rodas e para se adaptar a nova vida e ter independência precisam adquirir certas habilidades para vida diária. O objetivo desse estudo é evidenciar a contribuição da educação física nas habilidades necessárias para independência do lesado medular; no ensinamento de manejo em cadeira de rodas, mobilidade no colchão e transferências; em uma equipe transdisciplinar do Hospital Universitário Getulio Vargas (HUGV), no período de 2003 a 2006. Para tanto foram selecionados 30 alunos com lesão medular depois de aplicado os critérios de inclusão e exclusão, sendo 76,7% paraplégicos e 23,3% tetraplégicos, que participaram do Programa de Atividade Motora para Deficientes (PROAMDE) da Universidade Federal do Amazonas (UFAM). Os dados adquiridos através das avaliações foram analisados estatisticamente, e com base na analise dos gráficos, obtivemos como resultados um aprendizado total de 46,7% (14 alunos) no item manejo de cadeira; 30,0% (09 alunos) na transferência e 33,3% (10 alunos) na mobilidade.

**PALAVRAS CHAVES**: Lesão medular, Habilidades em cadeiras rodas, Re-adaptação.