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FORAMEN MAGNUM STENOSIS (FMS) IN THE ACHONDROPLASIA: MULTIDISCIPLINARY APPROACH AND SURGICAL TREATMENT

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Introduction: Foramen Magnum Stenosis (FMS) is frequently diagnosed in achondroplastic patients and can determine neurologic complications (mortality rate during the first year of life: 7.5%) due to brainstem compression. Indications for surgery (foramen magnum decompression) are: specific neurological deficits, Magnetic Resonance Imaging (MRI) signs of FMS (brainstem compression, subarachnoid cisterns "disappearance", T2-W images hyperintensity of the nervous tissue).

Materials and methods: 120 Children were hospitalized at our department, 30 of them underwent surgery (occipito-cervical decompression; male/female ratio = 3:1; mean age = 19 months; age range = 3–40 months). 7 Patients were less than one year. Surgery was proposed by a multidisciplinary team (Pediatrician, Child Neurologist, Neuroradiologist, Neurosurgeon, Anaesthetist, Pneumologist, etc.). Our treatment protocol provided for the fiberoptic intubation and the neurophysiologic intraoperative monitoring. After surgery, all the patients were transferred in the Intensive Care Unit to obtain a continuous monitoring of the vital parameters and the neurologic status.

Results: Neither post-operative complications nor intra/perioperative mortality were observed. At follow-up, we registered a neurologic improvement in 80% of the cases. 2 Patients died two years after surgery.

Conclusions: In all the patients affected by achondroplasia, we recommend a clinical multidisciplinary evaluation associated with neurophysiologic and neuroradiological investigations during the first year of life. We propose surgical treatment in the following cases: symptomatic patients; significant stenosis ("bone spurs", etc.); asymptomatic patients with abnormal evoked potentials or with other MRI signs of FMS.

PARAPLEGIA

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THE ALPINE SKI IN PARAPLEGIA

P. Trozzi

President AHSA (Association Ski with Handicap Abruzzo) from Pescocostanzo Aquila, Italy

The human being is different from the other livings because of the use of reason.

In difficult situations like the permanent paralysis after an accident at the age of 28, it is not always easy to be clear and rational. Your life change.

After the hospital vicissitudes and many surgeries, you must turn back to the everyday reality, but with an important physical disability.

Living at Pescocostanzo (AQ) at 1400 m of altitude for a disabled person it's not very simple because of the climate, but because the Human Being have the reason it is possible to adapt yourself to the ambient and to your own condition.

I start again my activity as sky instructor (that I always practice first of the accident), but with the monoski, object that allows paraplegic to ski.

It was not easy to learn at the beginning, it was 14 years ago when for the first time I use this kind of facility. After many years of training and a constant practice, the ski gave me satisfaction even in National and International agonistic competitions. I race all over Europe and now, I have the knowledge and I gained a total autonomy although I have a high spinal injury.

My extraordinary experience, brought me to create in 2005, together with other disabled persons, The Ski Association named AHSA that proposes the ski as "therapy", as entertainment and even agonistic.

I am the person in charge for the show people Freerider Sport Events, sports association that promotes ski lessons to the disabled in the most important ski resorts from Italy: this is Freerider Ski Tour. First, in autumn we are doing the Freerider Promo Tour: we promote the ski through the most important rehabilitation centres, hoping to stimulate the boys and girls that like me, has important traumas.

The ski may look as very difficult, but indeed is a sport that permit to the disabled to enjoy the mountains and the movement.

The exercise help to recuperate the physical and psychological equilibrium. Physical balance as the ski challenges you every instant, psychological equilibrium as the ski cancel the differences between the disabled and the people without handicap.

I know the paraplegia is not mental, I know it is objective, but the human reason may overcome the barriers and allows the human passions.

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THE VERTEBRAL MIELIC FRACTURES: CRITERIA FOR THE TOTAL COMPENSATION OF THE DAMAGE

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Forensic Medicine can precisely evaluate the damage occurring either to seriously injured people or to patients with a damaged spinal cord. However, seriously injured people suffer from a certain number of side effects after the traumatic event, that often are often not properly evaluated.

The aim of this work is to examine the complexity of the damage suffered by the the patient with a damage to the Spinal Cord.

First of all, it should be noted that people with a spinal cord injury after myelic vertebral fractures will always be dependent on someone else for any kind of daily normal activity.

This means:

- Loss of a role in the family and in the social context (from the partner/parent to somebody in need of cares)
- Impoverishment of social life and relationships.
- Total inability to any kind of working activity.

The time passed by the event, from its first seriousness characterized by the complications that had taken place and by the long intensive rehabilitation iter who the patient has submitted, often makes the clinical picture not really susceptible to improvement., while subsists an high risk of a further decline in case of an assistance, surveillance, global stimulation's long run project wouldn't take place.

The long run assistance project, starting after the dismissal from the intensive rehab department, needs to address several points. In particular:

LO SCI ALPINO NELLA PARAPLEGIA

Di P. Trozzi,

Presidente ASHA (Ass. Sci Handicap Abruzzo) di Pescocostanzo (AQ)

L'uomo si contraddistingue dagli altri esseri viventi perché ha l'uso della ragione.

In situazioni di difficili, come può essere una paralisi permanente a seguito di un incidente stradale a ventotto anni, non è sempre facile essere lucidi e razionali.

La vita cambia.

Dopo le vicissitudini ospedaliere e numerose operazioni bisogna tornare nella realtà di tutti i giorni con una menomazione fisica importante.

Vivere a Pescocostanzo Aq a 1400 Mt. sul livello del mare per una persona disabile non è proprio semplicissimo a causa delle condizioni climatiche, ma proprio perché l'Uomo ha l'uso della ragione riesce ad adattarsi al proprio stato fisico e ambientale.

L'attività di maestro di sci che svolgevo prima dell'incidente l'ho ripresa con il monosci, attrezzo che permette a persone con paraplegia di poter sciare.

Non è stato facilissimo all'inizio imparare, sono passati quasi 14 anni da quando per la prima volta ho usato questo tipo di attrezzatura. Dopo molti anni di costante applicazione e allenamento, lo sci mi ha dato soddisfazioni anche a livello agonistico nazionale ed internazionale. Ho gareggiato in tutta Europa ed ho acquisito una consapevolezza e autonomia totali pur essendo una persona con lesione midollare alta.

La mia stimolante esperienza mi ha portato nell'anno 2005 a fondare, con altre persone disabili, l'associazione di sci ASHA (Ass. Sci Handicap Abruzzo) che propone lo sci come "terapia", divertimento e anche agonismo.

Sono il responsabile dei dimostratori Freerider Sport Events, associazione sportiva che promuove corsi nelle stazioni sciistiche più importanti d'Italia per insegnare ai disabili a sciare: il Freerider Ski Tour. Questo viene preceduto in autunno dal Freerider Promo Tour: una promozione mirata nei centri di riabilitazione più importanti per stimolare i ragazzi e le ragazze che, come me, hanno subito traumi gravi.

Lo sci può apparire a un'attività molto complicata ma in realtà è una disciplina che consente anche a persone in carrozzina di vivere la montagna e lo sport.

Attraverso l'esercizio si recupera un equilibrio sia fisico che mentale: equilibrio fisico perché essendo uno sport di scivolamento mette alla prova in ogni istante la persona che lo pratica; equilibrio mentale perché è uno sport che permette di annullare le differenze poiché viene praticato alla pari con persone che non hanno alcun problema fisico.

La paraplegia è oggettiva non è uno stato mentale, ma la ragione umana fa superare e adattare le passioni dell'uomo.

Pietro Trozzi