Keywords: Rotational dislocation C0-C1; Positioning

The authors report 3 cases of tetraplegic patients due to a rotational dislocation between C0 and C1 occurring after a road accident (2 women and 1 man aged between 17 years and 27 years). All patients were resuscitated by the SAMU (mobile emergency care unit) on the premises of the accident and did not develop any cognitive impairment after this transient anoxia. Two out of the 3 patients underwent surgical cervical spinal fusion, a procedure which actually did not improve their head control.

After achieving seating positioning in a comfort-wheelchair, the need for a customized orthosis emerged for several reasons:
– absence of head control resulting in a higher risk of forward drop-head and compression of the ventilator tube in spite of a, sometimes badly tolerated, frontal strip;
– difficulties met by nurse caregivers to reproduce the optimal installation designed by the physiotherapies using the Wittmaker devices, in the context of major hypotonia.

Given the poor ventilatory autonomy, orthosis molding remains challenging and demands a strict coordination between all participants. Best achieved on a depression cushion, it requires 5 professionals: a nurse, a physiotherapist, an occupational therapist, an orthotist and a PMR specialist. The neck-piece with sub-occipital support is the most critical deliverable to handle. The dorsal thoracic piece is enlarged in order to embed the armrest. Prevention of ichiatic pressure points by means of silicone gel injections is warranted.

Fitting, delivery and fixation, by the occupational therapist, onto the wheelchair frame (Kyte Invacare type) with the ventilator installed at the rear. Mouth command and/or command by a caregiver; implementation of both systems.

The successful feedback as expressed by both patients and users has been immediate, thanks to the global positioning (head, trunk, limbs) and standardization of devices (neck-piece, armrest, footrest).

An increase of time spent seated was noted and has had a positive impact of the general health status and socialization (outdoor rides in bus, stroll in town…). Beyond the medical benefits, transfers are facilitated and a life project is more easily built up.

http://dx.doi.org/10.1016/j.rehab.2013.07.444

P094-e
Segmental spinal myoclonus in a quadriplegic patient after traumatic spinal cord injury

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Keywords: Segmental spinal myoclonus; Spinal cord injury

Introduction.— Reported cases of spinal myoclonus after spinal cord injury are rare and the physiopathological mechanisms are still unclear [2].

Observation.— We report the case of a 47 years old, traumatic quadriplegic patient, C6 American Spinal Injury Association class B, presenting with rhythmic, repetitive, bilateral and synchronous, flexion-adduction movements of the lower limbs. These movements persist several hours per day, are triggered by diverse stimuli, and are aggravated in supine position. They appeared a few weeks after the trauma, and have been persisting for more than 9 months. The EMG polygraphy shows rhythmic bursts, which are bilateral, synchronous, occurring at a frequency of 0.46 Hz, including the adductor muscles and the medial hamstrings. No treatment has been established because there is no functional impairment.

Discussion.— Myoclonus has been defined as a muscular movement, which is sudden and brief, resulting from a muscular shake (positive myoclonus), or from the inhibition of muscular contraction (negative myoclonus) [1]. Among these, spinal myoclonus are mostly rhythmic, and topography limited to muscles innervated by one or two contiguous spinal segments. They may be unilateral or bilateral and are generally synchronous on both sides. They are most often stimulus-sensitive and may persist during sleep. Polygraphy EMG finds rhythmic, synchronous, bilateral bursts with a frequency of discharge from 0.3 Hz to 8 Hz.

They are associated with various spinal cord insults. Levetiracetam can partially reduce myoclonus [3].

References
http://dx.doi.org/10.1016/j.rehab.2013.07.445

P095-e
Vertebral and spinal cord hydatidosis

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Keywords: Hydatidosis; Medullar; Morocco

Introduction.— Vertebral and spinal cord hydatidosis is rare. It is described in the literature with case.

Observation.— We describe a case of 39-year-old Moroccan woman who was hospitalized for paraparesis. She has a precedent history of pleural and hepatic hydatid cyst. Symptoms start 20 days before with mechanical low back pain and intermittent claudication without fever. The neurological exams found paraparesis and hypoesthesia without superior sensitive level. Magnetic Resonance Imagery (MRI) showed cystic lesions of dorsal vertebrae (D7–D11) on pre- and laterovertebral. Lesions have progressed in medullar spine. Surgical excision with dorsal decompressive laminectomy was performed. Medical treatment was 6 months of albendazol (400 mg/day) associated with rehabilitation. Evolution was favorable and patient has found daily activity.

Discussion.— MRI is very helpful for the diagnosis of vertebromedullary hydatidosis [1]. Biological exams are often normal. Prognosis is good but the recurrence risk is high [2].

References
http://dx.doi.org/10.1016/j.rehab.2013.07.446

P096-e
Paraparesis revealing ochronosis: a case report

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Unknown abstract.
http://dx.doi.org/10.1016/j.rehab.2013.07.447

P097-e
Support for a tetraplegic patient secondary to the drug hypersensitivity syndrome DRESS syndrome

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Keywords: DRESS syndrome; Quadriplegia and bactrim

We report the case of 51 years old, Asian patient, no particular antecedents with a urinary infection treated with bactrim. Two days after the beginning of the treatment, the patient was hospitalized with febrile skin rash, neurological and gastrointestinal disorders.
Clinical examination showed the following symptoms: 40°C temperature, lymphadenopathy, skin rash of the whole integument with intervals of healthy skin, purpura of the soft palate and uvula and a pyramidal syndrome. The biological exams showed hypereosinophilia at 2000 elements/mm³, a mononucleosis syndrome and hepatic insufficiency. Evolution: worsening with complete tetraplegia installation, respiratory disorders and heart failure requiring intubation in intensive care unit, despite the effective dose corticosteroid therapy and discontinuation of the treatment. After a battery of biological examinations and radiological diagnosis of DRESS was addressed due to bacitram.

The patient was admitted in the of Physical Medicine and Rehabilitation Department. After four months of hospitalization, we have noted a gradual recovery of muscle strength and sensitivity. In functional terms the patient walks with two English canes persistent. The skin rashes persisted requiring change in treatment by a dermatologist.

Conclusion.— It is very important to acknowledge the DRESS syndrome because of its potential severity, its similarity to other diseases and the appropriate therapeutic sanction: stopping the causing drug. This pathology associates both mucocutaneous and systemic signs. It manifests itself by severe cutaneous reaction associated with hyperthermia and multi-visceral involvement (lymphadenopathy, hepatitis, nephritis, interstitial pneumonia...) as well as hematological abnormalities (high eosinophilia...). Each symptom is variable from one individual to another in its appearance and in its expression, but severe visceral involvement remains the leading cause of mortality.

In our case, the neurological disorder is predominant. It worsens the functional prognosis of our patient. DRESS syndrome secondary to bacitram remains very rare.

http://dx.doi.org/10.1016/j.rehab.2013.07.448

P098-e

Clinical results of Brindley neurostimulator: Preliminary results

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Keywords: Brindley; Sacral anterior roots stimulation; Spinal cord injury

Background.— The Brindley procedure consists of the implantation of a sacral anterior-roots stimulator (SARS) combined with a sacral deafferentation (SDAF) [1].

Aim.— This study evaluate long term efficacy and complications of a sacral anterior-roots stimulator to enable complete micturition.

Material.— Twenty-nine patients with supra-sacral spinal cord injury (SCI), implanted of a Finetech-Brindley stimulator for more than 6 months were included.

Method.— This is a retrospective and descriptive study, setting in one French center, Nantes University Hospital, specialized in the treatment of SCI’s patients, and the Finetech-Brindley bladder controller implantation. The main outcome measure is the ability to urinate on demand with a residual volume of less than 50 mL. Each patient was asked to fill a questionnaire about their use of the Finetech-Brindley stimulator and their satisfaction.

Results.— Since surgery, 27 patients have achieved an implant driven complete micturition without additional method to empty their bladder. Two patients have never been able to have complete micturition, one because of a low implant driven detrusor contraction and one because of a lack of sacral deafferentation. Today, five patients who used to enable complete electrical micturition, now use intermittent catheterization. Among them two patients changed their micturition mode because of a change of their neurological status without link with the neurostimulator, one because of the removal of the device due to an infection and two because of cable failures which will be surgically repaired.

Six patients underwent a second surgery for an incomplete deaferentation, three for an implantable device failure. The Brindley stimulator is used to help defecation in 60%. Three men use the Brindley stimulator for sexual intercourse without other medication. Patients who underwent surgery are “satisfied”.

Conclusion.— Our results are similar to other publications. The use of SARS to empty the bladder combined with SDAF as a treatment of neurogenic bladder dysfunction in complete SCI’s patients remains an efficacy and useful technique.

Reference
http://dx.doi.org/10.1016/j.rehab.2013.07.449

P099-e

Verrucous carcinoma and recurrent sacral pressure ulcer in a patient spina bifida: About a case and review of the literature

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Keywords: Verrucous squamous; Cell carcinoma; Meningomyelocele; Spina bifida; Bedsore; Marjolin’s ulcer

Introduction.— Verrucous carcinoma is a rare variant of highly differentiated squamous cell carcinoma, mostly observed in the mouth and pharynx. Verrucous carcinoma of the skin occurs extremely rarely and usually mimics chronic infection, in a context of a chronic wound, corresponding to Marjolin’s ulcer. In patient with meningocele, only 8 cases of sacral squamous cell carcinoma have been reported in the literature. No cases of verrucous carcinoma had been described.

Observation.— The case reported here was unusual in that the verrucous carcinoma arose in a chronic sacral pressure ulcer with a purulent appearance, in this man operated for meningocele of the age of one year. The extension of this carcinoma was exceptional to say the least, reaching the sacrum, L4–L5 and the pelvis, despite four iterative extended surgeries. One explanation comes from the fact that verrucous carcinomas are particularly well differentiated and merge the anatomoopathological analysis with simple epidermoid cysts.

The patient finally passed away of a major deterioration of his general condition. Discussion.— The eight cases described in the literature are all squamous cell carcinomas in patients with spina bifida also an important extension, and most led to death. Marjolin ulcer is often developed on sacral bedsores in spinal cord injured [2], but it is possible that dysraphism per se may therefore constitute a supplementary risk factor [3] for the development of carcinoma in the dysraphic zone, by the fact of an invagination of epithelial elements in intradermal. The association between spina bifida and the development of Marjolin’s ulcers must be taken into account in the management of these patients, who require very close follow-up. Any wound or fistula occurring over the dysraphic zone must not be ignored whenever it becomes chronic, recurrent, or presents signs of transformation [1].

References
http://dx.doi.org/10.1016/j.rehab.2013.07.450

P100-e

Paraplegia after meningoencephalitis complicated by an arachnoidis in a patient with a Currarino syndrome. About a case

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Keywords: Arachnoid; Currarino syndrome; Meningeal arachnoiditis; Spina bifida; Paraplegia

Introduction.— The Brindley procedure consists of the implantation of a sacral anterior-roots stimulator (SARS) combined with a sacral deafferentation (SDAF) [1].

Aim.— This is a retrospective and descriptive study, setting in one French center, Nantes University Hospital, specialized in the treatment of SCI’s patients, and the Finetech-Brindley bladder controller implantation. The main outcome measure is the ability to urinate on demand with a residual volume of less than 50 mL. Each patient was asked to fill a questionnaire about their use of the Finetech-Brindley stimulator and their satisfaction.

Method.— This is a retrospective and descriptive study, setting in one French center, Nantes University Hospital, specialized in the treatment of SCI’s patients, and the Finetech-Brindley bladder controller implantation. The main outcome measure is the ability to urinate on demand with a residual volume of less than 50 mL. Each patient was asked to fill a questionnaire about their use of the Finetech-Brindley stimulator and their satisfaction.

Results.— Since surgery, 27 patients have achieved an implant driven complete micturition without additional method to empty their bladder. Two patients have never been able to have complete micturition, one because of a low implant driven detrusor contraction and one because of a lack of sacral deafferentation. Today, five patients who used to enable complete electrical micturition, now use intermittent catheterization. Among them two patients changed their micturition mode because of a change of their neurological status without link with the neurostimulator, one because of the removal of the device due to an infection and two because of cable failures which will be surgically repaired.

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http://dx.doi.org/10.1016/j.rehab.2013.07.449