Spina bifida-related orthopedic disorders

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Keywords: Orthopedic disorders; Neurological spina

Introduction.– We wish to draw attention to the diversity of living and involving neuro-orthopedic profile in 32 spina bifida patients. The major treatment burden must be adapted to functional and vital prognosis. Management is multidisciplinary.

Objective.– To describe the clinical manifestations and disorders caused by neuro-orthopedic features, and emphasized the therapeutic value.

Material and method.– The study is being undertaken through a consultation with physical medicine and equipment from 2008 to 2010 including 32 cases of spina bifida. All patients could be evaluated clinically. The variables studied: age, sex, neurological level, clinical profile, and orthopedic disorders.

Results.– The patients were divided according to: ages ranged from 02 to 23 years, 2 years (n = 1) 5 years (n = 3) 7–10 years (n = 15) 13–23 years (n = 13) and sex ratio: female 24/male 8.

Groups were defined based on the neuromotor level: G1: L1-L2 (9) G2: L3-L4 (9) G3: L5-S1 (14).

The orthopedic and surgical measures were made for spine, hips, knees and feet.

Discussion.– The neuro-orthopedic manifestations are based on the achievement paralysy (paraplegia, para paresis asymmetric trophic ulcers (pressure ulcers), bladder and sphincter disorders by failing to protect renal function. All the patients underwent surgical treatment, which provided a functional improvement, relief of sitting and walking easier. The provision of orthopedic devices has standing and walking.

Conclusion.– The orthopedic management of spina bifida children must be adapted to the needs of each patient to monitor and prevent these disorders causing disability. Rehabilitation, orthopedic surgery and equipment account for most of this support.

Further readings


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The diagnosis of retinoid induced premature epiphyseal closure of the growth plate and an important metaphyso-epiphyseal oedema, more massive anterior knee pain, since two months, evoking a femoro-patellar origin. The history taking brought out the use of isotretinoin for more than 6 months (0.5 mg/kg). Magnetic resonance imaging (MRI) findings showed an irregularity of the growth plate and an important metaphyso-epiphyseal oedema on both sides. In chronic phase, a thumbprint-like image may persist. The symptoms resolution arises in few weeks after the treatment interruption. A single case of static disorder was reported until now. The small size of the growth plate interruptions, insufficient to lead to a growth disorder if the medicament is stopped early enough, explains probably it. This complication being rare, a radiological follow-up of the young patients treated by retinoids is not proposed.

**Further readings**


**P056–EN**

A new ortesis for multilevel surgery on lower limbs in cerebral palsy children

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**Keywords:** Cerebral palsy; Surgery; Apparatus

**Objective.–** Immobilization after surgery of lower limbs is difficult and long to install on the operating table, inducing complications and delays in starting physiotherapy. We built posture apparatus, which can be made before the operation, fitted to the orthopaedic corrections after surgery and removable and adjustable for the needs of physiotherapy.

**Method.–** We improved this orthesis during the follow-up of 31 cerebral palsy patients after multilevel surgery on the lower limbs.

**Results.–** The apparatus includes two valves, one crural, one sural connected by a flexible metallic blade according to the residual permanent flexion of the knee and allowing a regulation in length; inside, there is a removable plastazote, it can be cut and enlarged for dressings. A droplet flexible valve with elastic is used to protect the heel. A control system of the abduction completes the apparatus.

**Discussion.–** Benefits are evident: time of anesthesia is reduced, surgical cost is reduced, nursing is quite easier, and physiotherapy is earlier. During this study, we had only few complications and because of this ortesis we avoided great complications.

**Conclusion.–** This ortesis seems to be useful in the treatment of cerebral palsy patients with multilevel surgery on the lower limbs.

**Further readings**


**P057–EN**

Premature epiphyseal closure in an adolescent treated by retinoids for acne: An unusual cause of anterior knee pain

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**Keywords:** Retinoids; Knee; Premature epiphyseal closure

**Introduction.–** Retinoids are effective and widely used for the treatment of severe acne. Their use can be, however, associated with numerous side effects. For example, some rare cases of premature epiphyseal closure were reported.

**Observation.–** A sixteen-year-old soccer player consulted for bilateral progressive anterior knee pain, since 2 months, evoking a femoro-patellar origin. After physiotherapy, the pain decreases on the right but remained on the left. The history taking brought out the use of isotretinoin for more than 6 months (0.5 mg/kg). Magnetic resonance imaging (MRI) findings showed an irregularity of the growth plate and an important metaphyso-epiphyseal oedema, more marked on the left. The diagnosis of retinoid induced premature epiphyseal closure was retained. The treatment was stopped, with a resolution of symptoms within two months. The control MRI of the left knee present small sequela thumbprint-like growth plate lesion. Eighteen months later, neither limb-length discrepancy nor static disorder was noticed.

**Discussion.–** Premature epiphyseal closure is a rare complication of retinoid treatment of acne. Retinoids induce an invasion of the growth plate by osteoclasts and a decrease in proteoglycans synthesis. The knee seems the most involved joint. The clinical presentation is aspecific, sometimes lightly symptomatic. A careful pharmacological history and an appropriate imaging are necessary. MRI is now the gold standard. It shows an irregularity of the growth plate with an oedema on both sides. In chronic phase, a thumbprint-like image may persist. The symptoms resolution arises in few weeks after the treatment interruption. A single case of static disorder was reported until now. The small size of the growth plate interruptions, insufficient to lead to a growth disorder if the medicament is stopped early enough, explains probably it. This complication being rare, a radiological follow-up of the young patients treated by retinoids is not proposed.

**Further readings**


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**Keywords:** Obstetrical palsy; Brachial plexus; Pediatric rehabilitation

**Objective.–** Our work aims to assess the modalities of management of obstetrical brachial plexus palsy in the PMR pediatric unit.