

**Background** The clinical spectrum and associated factors of cerebral palsy may differ between developing and developed countries.

**Aim** To evaluate the predisposing factors, clinical spectrum, and associated problems of cerebral palsy (CP) in children.

**Setting and design** In this retrospective study patient data were extracted from file records in our center for early diagnosis of childhood disabilities.

**Patients and Methods** Our study population included one hundred and twenty two children with age range from 7 months to 17 years. Patients were followed and reviewed in a 32 months period from September 2007 to April 2010.

Simple statistical analysis was used for percentage calculation.

**Results and Conclusions** Spastic type was the predominant (82.7%), with quadriplegic subtype being the most common (34.4%). The other types were choreoathetoid (8.2%) mixed type (6.6%) and ataxic (2.5%) being the least. Speech delay was the most common associated problem (71.3%) followed by mental retardation (61.5%), seizures (35.2%), hearing problems (26.2), and autism (4.9%) being the least. The clinical spectrum of CP in our country may differ from that reported from the western countries. Prospective studies are needed to evaluate the clinical spectrum and predisposing factors in Jordan.

## 1520 FUNCTIONAL PROGNOSIS IN OBSTETRICAL BRACHIAL PLEXUS PALSY

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Obstetrical brachial plexus palsy (OBPP) is a complication of difficult delivery and resulted from excessive traction on the brachial plexus during delivery. Erb palsy, klumpke paralysis and panplexus palsy reported in 46%, 0.6% and 20% of patients, respectively. Unilateral injury is more common than bilateral injury. Risk factors include macrosomia, multiparity, prior delivery of a child with OBPP, breech delivery shoulder dystocia, vacuum and forceps assisted delivery and excessive maternal weight gain. The recovery rate is usually reported to be between 80 and 90%. Management based on medical and surgical interventions. We evaluated 42 children with OBPP. Of them, we could follow only 28 cases during two years. Most of the patients were females. Right side palsy was more prevalent than left side palsy. Vaginal delivery without forceps was the most mode of delivery. Vertex was the most common presentation. Most of the patients were term. The mean weight of the birth was 3.8 kg. Erb palsy and pan-plexus palsy consisted of 71.4% and 28.6% of lesions. Poor to moderate recovery occurred in 13 cases. good to complete (expected) recovery occurred in 15 cases.

## 1521 PAEDIATRIC NARCOLEPSY: A VIDEO SERIES

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**Introduction** Narcolepsy often begins in childhood (30% of cases) but is infrequently recognized early in the course; only around 4% are diagnosed before age 15. There have been many reports linking H1N1 and narcolepsy. We present a video series of 4 patients that highlight the diagnostic dilemma in paediatric cases as well as association with H1N1 flu.

**Case Reports** 4 children (5–11 years) were referred to the Neurologists for excessive daytime sleepiness. Disturbed sleep and cataplexy developed soon after. Immunosuppressive therapy was attempted with no response in one child with rapid progression. Cataplexy initially was focal or partial and progressed to the

classical description. The Multiple Sleep Latency Test (MSLT) was grossly abnormal in all them. Hypocretin was absent in the one child investigated. Autoimmune screen was negative in all. One child was treated for H1N1 and 2 had the H1N1 vaccine prior to onset of symptoms.

**Conclusion** The key to early diagnosis and treatment is recognition of the condition. The videos highlight the facial features and other symptoms that are clues to narcolepsy (Pentad of narcolepsy). Rapid progression is possible related to H1N1 exposure.

## 1522 CLINICAL STUDY OF CHINESE MASSAGE COMBINED WITH MUSIC THERAPY IN TREATMENT OF CEREBRAL PALSY

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**Objective** Clinical observation of traditional chinese massage combined with music therapy to improve lower limbs' range of motion (ROM) and to reduce score of composite spasticity scale (CSS) in children with cerebral palsy (CP).

**Methods** Traditional chinese massage was performed to children with CP, such as to attack vital points of DU meridian, to tonify qi of kidney and spleen, pinching massage, footplate massage, and segmental massage. Background music was played at the same time. Course of treatment was 30 days. ROM of ankle-joint and hip-joint, score of CSS was measures before and after the treatment.

**Results** 286 children with CP participated. 106 cases showed significant effect (37.40%), 172 cases showed progress (59.16%), and 8 cases had no-effect (2.84%). Significant improvement were found after treatment for ROM of ankle-joint (before: 105.64±12.66; after: 76.58±9.89), and ROM of hip-joint (before: 119.89±25.47; after: 158.99±18.66) (P < 0.01). Score of CSS was significantly lower after treatment (before: 12.39±2.56; after: 7.069±2.97) (P < 0.01).

**Conclusion** Traditional chinese massage combined music therapy can regulate qi and blood, solute muscle contracture and spasm, so as to rectify scissors gait and talipes, to improve gross motor function of children with CP. It is a therapy of convenience, economy and benefit.

## 1523 SCALP ACUPUNCTURE THERAPY OF CHILDREN WITH AUTISM

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**Objective** Assessing the efficacy scalp acupuncture therapy for autism of children.

**Methods** We selected the 70 cases of autism children followed the random number method to divide the cases scalp acupuncture therapy group (30 cases) and structured control group (40 cases). The treated group with activating brain and opening orifices scalp acupuncture therapy, nordoff-robbins therapy and structured teaching, the control group with Nordoff-Robbins therapy and. We used the Clancy Autism Behavior Scale, Childhood Autism Behavior Scale, Autism Behavior Checklist, Gesell Development scale to assess the result before and after treatment, and adopted the blind method to evaluate the results.

### Results

1. In the same treatment time, the therapy group is better than the control group.
2. Comparing among the treatment group, the older group and younger group, there have significant difference in ABC score, CARS score and social adjustment score.

The result cues that the improvement of autism-like after with the treatment of activating brain and opening orifices scalp acupuncture therapy, no matter age.3. Compared before and after treatment in therapy group, there have significant difference in Language score. The result cues that activating brain and opening orifices scalp acupuncture therapy can significantly improve language function in autism children.

**Conclusions** Activating brain and opening orifices scalp acupuncture therapy can significantly improve the therapeutic effect, be better to improve the autism-like of children and raise the IQ level and language ability.

## 1524 THE STUDY ON QUALITY OF LIFE OF CHILDREN WITH CEREBRAL PALSY

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**Objective** To study the quality of life of children with cerebral palsy.

**Methods** With the PedsQL4.0, 113 children with cerebral palsy were studied, and 52 children with common illness and 314 normal children were also studied and compared. With the PedsQL of school functioning, the children of these three groups who had been to school or kindergarten were also studied and compared.

**Result** The score of physiology functioning, communication functioning and total score of PedsQL in children with cerebral palsy were lower than those in the children with common illness and normal children. The difference has statistic significance. The score of emotional functioning in children with cerebral palsy was only lower than that in the normal children, the difference has statistic significance. The score of school functioning in children with cerebral palsy was significant lower than that in children with common illness and normal children ( $P < 0.01$ ).

**Conclusion** The quality of life of children with cerebral palsy is much lower than children with common illness and normal children. The illness has sever effect on the school functioning of children with cerebral palsy. Therefore, the whole improve of quality of life is the goal for the rehabilitation of children with cerebral palsy.

## 1525 MEASUREMENTS OF QUALITY OF LIFE FOR CHILDREN WITH CEREBRAL PALSY

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**Aim** The purpose of this article is to detect common measurements of quality of life (QOL) for children with cerebral palsy (CP).

**Method** To review literatures which attempted to assess QOL in individuals with CP in MEDLINE.

**Result** Five measurements met the inclusion criteria, including PedsQL Generic Core Scales and Cerebral Palsy Module, CHQ, KID-SCREEN, PODCI and CP-QOL.

**Conclusion** Five instruments consist of generic and condition-specific version. Considering development of children both self and proxy report are available. All have acceptable clinical utility. However, further study should be given to confirm their reliability and validity in assessing QOL of children with CP. There are some drawbacks using these instruments, including confusion of QOL, function and participation, failure to reflex real QOL for children, weak agreement between self and proxy report on social function and psychosocial domains.

## 1526 TREATING TYROSINEMIA TYPE 1: EXPERIENCE FROM KUWAIT

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Hereditary tyrosinemia type1 (HT1) is an autosomal recessive disorder caused by deficiency of fumarylacetoacetase. Untreated tyrosinemia type I usually presents either with severe liver involvement or later with liver dysfunction and renal tubular dysfunction associated with growth failure and rickets. Early diagnosis and prompt treatment is essential for an improved prognosis. Combined treatment with nitisinone (NBTC) and a low-tyrosine diet has resulted in a greater than 90% survival rate.

We are describing the presentation, management and follow up of 6 kuwaiti patients having (HT1). The index case was the product of consanguineous marriage male who presented at five months of age with bleeding due to hepatic failure was found to have rickets, was given a trial of rectal NBTC but died at age of 7 months. All following siblings were screened for (HT1). Three children (two males and one female) out of four were affected. The other index case was the product of consanguineous marriage, a female died at age of 6 months with hepatic failure. Her father was the youngest brother of the first index case. Latter on, these parents had another affected female who was diagnosed on birth based on family history. All the patients were kept on analogue X phen tyr meth free milk beside breast feeding. Once diagnosis was confirmed they were started on NTBC 1 mg/kg/day twice daily. They were monitored regularly by complete blood count, liver and renal functions, blood amino acids, urine succinylacetone, ultrasound, CT abdomen, echocardiography and slit-lamp examination of the eyes.

## 1527 SEIZURE WORSENING CAUSED BY LOW SERUM VALPROATE LEVELS FROM AN INTERACTION BETWEEN VALPROATE AND MEROPENEM

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**Background** Meropenem is a carbapenem antibiotic, has a broad spectrum of antimicrobial activity. Valproate is widely used in the treatment of epileptic seizures in children. In last years, low serum concentrations of valproate were reported in children and adults receiving concomitant administration with meropenem. We present an interaction of meropenem with valproate in an epileptic child, leading to seizure exacerbations owing to the rapidly-lowering of serum valproate concentration.

**Case Report** This report describes a 14-year-old epileptic girl inpatient who received concurrent treatment with meropenem and valproate for the treatment of lobar pneumonia, pleuresia and epilepsy, respectively. In this patient, an increase of seizure frequency and somnolence were observed after addition of meropenem on the treatment, and a rapid decline of valproate serum concentrations was observed after two dose meropenem. This event was the most likely cause of increased seizure frequency. The dosage of valproate was increased and meropenem was stopped. Two days later, the seizures stopped. Five days later, the serum valproate concentrations increased to three fold and four week later, they increase to therapeutic levels. The seizures were considered to be probably related to the concurrent administration of meropenem and valproate.

**Conclusion** To avoid drug interaction that reduces the serum concentration of valproate, meropenem should not be used in epileptic patients using valproate for the treatment of epilepsy. If concomitant administration is essential, serum valproate levels should be monitored frequently.