Intra-articular corticosteroid injections for care of hip dislocations in cerebral palsy adults

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Introduction. – The incidence of hip dislocations in cerebral palsy is significant [1], requiring prevention, including botulinum toxin injections [2] from childhood. Hip dislocation may be diagnosed with delay, causing persistent pain. Intra-articular corticosteroid hip injections may temporarily relieve pain and delay surgery.

Observation. – In University Hospital of Montpellier, from July 2009 to January 2011, four non-walking patients with cerebral palsy, 15 to 25 years old, with unilateral hip dislocation, had intra-articular hip corticosteroids with local anaesthetic injections for three of them. Patients 1, 2 and 3 had botulinum toxin injections in periaricular muscles in the same time.

Results. – For patient 1, injection of corticosteroids resulted in total pain relief at 48 hours lasting 3 months (hetero assessment, pain VAS impossible), the intervention was repeated three times. Regarding temporary benefit and severe pain, the patient had a soft-tissue surgery of the hip 3 months after the last injection.

For patient 2, injection of corticosteroids resulted in a decrease in pain immediately after the intervention and for 1 month (hetero assessment, pain VAS impossible). He then had a femoral valgisation osteotomy 4 months later.

For patient 3, one first injection was effective on pain, so repeated 5 months later with long-lasting effect and no need for surgery.

For patient 4, the injection was inefficient (pre-injection VAS 70/100 and immediately post-injection 60/100, at 2 months 70/100). Due to the severity of pain and grade IV chondropathy on scan imaging, hip arthroplasty was proposed.

Discussion. – Corticosteroids associated with an anaesthetic test may have diagnostic and therapeutic value, achieving pain relief for three patients which lasted several weeks. Injections may result in a decrease in osteoarticular pain, while botulinum toxin has an effect on the muscular component of pain. This type of intervention is not described in the literature for cerebral palsy adult patients.

Conclusion. – Intra-articular hip injections of corticosteroids may result in temporary pain relief and delay possible surgery.

Further reading

Keywords: Cerebral palsy; Hip dislocation; Intra-articular injection; Corticosteroids

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Impact of cognitive and functional sequelae on recurrence of excised HO in patients with traumatic brain injury: A case control study

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Keywords: Heterotopic ossification; Traumatic brain injury; Surgical removal; Functional sequelae; Cognitive sequelae

The timing of surgery with regard to recurrence risk after neurological Heterotopic Ossification (HO) excision is still debated. This study investigated the association between recurrence risk after HO excision in Traumatic Brain Injury (TBI) patients and [1] the operative delay and [2] the degree of neurological sequelae (Garland status).

A case control study was performed. Patients who developed troublesome HO requiring surgery after TBI with (case, n = 16) or without recurrence (control, n = 64) were retrospectively included. Other matching criteria were: sex and age at the time of surgery (± 4 years).

The median delay for first HO surgery was 13.7 months (IQR 9.0 to 37.1) for the case group and 13.2 months (IQR 7.8 to 30.0) for the control group. No significant link was found between recurrence and operative delay (P = 0.54), even after inclusion of all matching factors (P = 0.53) or Garland status (P = 0.81). The inclusion of Garland status into the model did not change this result (P = 0.64).

After TBI, no link was found between HO operative delay and recurrence. In spite of a common notion of a relationship between initial severity of TBI and HO development, no link was found between HO recurrence risk and the severity of sequelae.

References

Heterotopic ossification and stroke

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Keywords: Heterotopic ossification; Stroke; Hemiplegia

Background and purpose.—Heterotopic ossifications (HOs) are a common secondary complication of central neurological system (CNS) damage. This ectopic ossification reduces range of motion until ankylosis or vessel and nerve compression occur. HOs are frequently described after Traumatic Brain Injury, Spinal Cord Injury and in a much smaller proportion after Stroke. HOs commonly happen on the paretic side and mainly after hemorrhagic stroke. The aims of this study are to assess the features of HO after stroke in a large sample of patients and to determine whether hemorrhagic stroke increases the risk of HO.

Methods.—Twenty-four stroke patients with 31 troublesome HO were retrospectively studied between 1993 and 2009 in our institution. They were each matched with four controls i.e. 96 stroke patients without troublesome HO. Matching criteria were age (±3.5 years) and sex.

Results.—The mean age at time of stroke was 42.8 ±7.32 years (from 31.8 to 54.8) for the case subgroup and 44.3 ±9.28 years (28.6–64.8) for the control group. Delay from stroke to surgery for HO excision was 80.9 ±92.5 months (2004–2011) portant sur 31 arthrolyses du coude suivies en MPR pour rééducation postopératoire :

– groupe 1 : six patients (avec cathéter) ;
– groupe 2 : 25 patients (sans cathéter).

Méthodes d’évaluation :
– ROM ;
– l’EV A a passé de 7,5 à 4,1 ;

Conclusion.—Hemorrhagic stroke does not seem be related to an increased risk of troublesome HO.


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