Cerebral malaria: Assessment and rehabilitation: A case report

G. Varennes*, A. Malobe, M.-B. Simunek, A. Vlaicu, M. Khettal, C. Ayvard*
Service MPR du centre Paris-Sud-Fondation hospitalière Sainte-Marie, Paris, France
*Corresponding author.

Introduction.– Cerebral malaria is the most serious complication of paludism. The pathogenic mechanisms are however still unclear, the brain may have irreversible injury.

Objective.– Describe deficits after cerebral malaria and their rehabilitation. Method.– Case report and systematic review.

Case.– Our patient is 61 years old, with hypertension, residing in France. She developed fever after an 11-day stay in Africa. Rapidly, her neurological status declined to Glasgow 4. Blood smears showed 40% P. falciparum parasitemia. No other cause for encephalopathy was found except cerebral malaria. The patient arrived in the rehabilitation unit after the anti-malaria treatment and two month in the recovery unit. MRI showed hypersignals from the white matter of the brain and the basal ganglia. The physical examination revealed a hypertrophic scar bilaterally, a positive dynamic bleaching test, and a visual field defect on both sides. The patient had a history of right ankle arthrodesis. The patient complained of a severe and unusual limitation of his ability to walk. In the past, he was able to walk with crutches despite the recurvatum of his right knee. He was unable to eat his braces because of the swelling. In light of the symptoms, knee x-rays were ordered in an emergency context and revealed a condylar fracture.

Discussion.– Given the muscle testing which confirmed insufficient quadriceps strength of the right leg with locking passive recurvatum, osteosclerosis surgery and orthopedic fixation in femoral recurvatum was proposed. The aim of this operation was to take advantage of the extra-condylar fracture to stabilize the knee by passive static loading positioning the load line in front of the knee. This recurvatum fracture reduction was designed to open and stabilize the knee automatically and prevent the release of capsular condylar shell, protecting the knee from destabilization. It was also possible to correct a static disorder in valgus. For success, this surgical procedure has to ensure the stability of the hip in extension, requiring sufficient gluteus maximus strength.

Further reading


Functional outcome after rehabilitation of the burned hand: 18 cases

¹Service de médecine physique et de réadaptation fonctionnelle, CHU Ibn Rochd, CHU Casablanca, 1, quartier des Hôpitaux, 20100 Casablanca, Morocco
²Service de chirurgie plastique et réparatrice, CHU de Casablanca, Casablanca, Morocco
*Corresponding author.

Keywords: Hand burn; DASH; Rehabilitation; Thermal burn; Electrical burn

Introduction.– Burns are very common and often occur in the context of a home accident or a workplace accident. Burns of the hand, whether isolated or associated with other areas, constitute a functionally severe condition. Care from the acute phase is particularly important to avoid or limit sequelae through early rehabilitation, enabling function as optimal as possible. This is a retrospective and descriptive study involving 18 patients treated in our rehabilitation unit for hand burns.

Results.– The average age of patients was: 35.6 years (62–13). The sex ratio showed a male predominance: M/F = 3.5. Burn severity was: 2° superficial burn (n = 10 patients), 2° deep burns (n = 6) and 3° burns (n = 2 patients). The mechanisms were: electrical burn (n = 1 patient) and thermal burn (n = 17 patients). Twelve patients underwent controlled healing and 6 patients received an autograft. The mean DASH improved after rehabilitation from 71.56 (88.3%–53.3%) early in rehabilitation to 19.27 (40.8%–3.3%) at discharge.

Discussion and conclusion.– The management of the burned hand has as its main objective: the restoration of maximum functional integrity and the cosmetic appearance of the hand. Rehabilitation management should be started as soon as the acute phase has been controlled with an optimized healing process. Close collaboration between surgeons and therapists is the key to success.

Further reading

60%. After the 4-month rehabilitation program, the DASH was 17.5%.


Functional prognosis of the burned hand in an infant: A case report

H. Bennassaoud*, H. Abid, N. Mankar-Bennis, N. Hajaj-Hassouni
Service de rhumatologie et de médecine physique et de réadaptation, hôpital El Ayachi-Salé, CHU Ibn Sina, 10000 Rabat, Morocco
*Corresponding author.

Introduction.– Burns are very common and often occur in the context of a home accident or a workplace accident. Burns of the hand, whether isolated or associated with other areas, constitute a functionally severe condition. Care from the acute phase is particularly important to avoid or limit sequelae through early rehabilitation, enabling function as optimal as possible.

Objective.– We report a case of hand burns involving both hands of an infant illustrating the main strategies for rehabilitation of the burned hand.

Tools.– A right handed nursling aged 18 months was a victim of thermal 2° degree deep burns which occurred during a home accident. The burns involved the dorsal aspect of both hands and the first commissure. The physical examination revealed a hypertrophic scar bilaterally, a positive dynamic bleeding test, and an altered vitropession test (recoloring time between 1and 2 s), subcutaneous adhesions, retraction of the 1st commissure and stiffness of the MCP and the thumb with defective of opposition and closure of both hands. The DASH was 60%. After the 4-month rehabilitation program, the DASH was 17.5%.

Conclusion.– The main objective of supportive care for the burned hand is to restore maximum functional and cosmetic integrity. It must be started early in the acute and optimized phase throughout the healing process and requires close collaboration between surgeon and physiotherapists. Functional prognosis of the burned hand depends on the depth of the burn and the period of supportive care.