

## **CASE REPORT SAMPLE A**

### **COMPLEX REGIONAL PAIN SYNDROME IN AN 8 YEAR-OLD FEMALE WITH EMOTIONAL STRESS DURING DEPLOYMENT OF A FAMILY MEMBER**

**Introduction:** Deployment creates unique challenges for family members. Presented is a case of complex regional pain syndrome (CPRS) in an 8 year-old girl. This case illustrates the need to expand the typical age range and raise awareness of the psychological impact military deployment has on children with CPRS.

**Case:** A healthy, highly emotional 8 year-old female, with a recently deployed father, presented with left foot pain one day after falling off a swing. X-rays were negative and she was placed in a splint and later a cast for comfort. Despite 5 weeks of immobilization, she displayed symptoms of pain, ecchymosis, allodynia, and abnormal hair growth. This prompted repeat x-rays demonstrating osteopenia and an MRI revealing both a cuboid and 4<sup>th</sup> metatarsal fracture. After 6 more weeks of immobilization, her symptoms persisted. Repeat MRI demonstrated interval healing of above mentioned fractures, but worsening patchy bone marrow edema consistent with CRPS. Three months of aggressive physical therapy resolved symptoms.

**Discussion:** Pediatric CPRS is characterized by ecchymosis, edema, allodynia, mottling, and abnormal hair growth in the region of pain usually after minor trauma. Osteoporosis can be seen on x-ray. It occurs predominately in adolescent (mean age, 11.8 years) females (90%), mainly affects the lower limbs (85%), and has a lengthy time to diagnosis (13.6 weeks to 1 year). Psychological stressors are thought to predispose patients to CPRS. This case presents a patient with classic symptoms of CPRS including ecchymosis, allodynia, edema, mottling, abnormal hair growth and osteoporosis all present several years younger than what is commonly described in the literature. Additionally, her father's deployment highlights additional stressors that military dependants endure that may predispose them to such conditions.

**Conclusion:** CPRS can occur in younger than expected age ranges of children who experience the unique emotional stressor of a deployed family member.

## **CASE REPORT SAMPLE B**

### **SEVERE MALARIA IN THE RETURNING TRAVELER**

**Introduction/Objective:** Malaria can present insidiously with fever and other non-specific symptoms. Patients experiencing these early symptoms are commonly misdiagnosed. Unfortunately, this illness can rapidly progress and result in death if treatment is delayed. Presented is a patient with malaria initially misdiagnosed after recent travel to Africa.

**Case:** A 31-year-old female, recently returned from Sierra Leone, presented to the ED with headache, malaise, and nausea. She had normal labs, head CT, and lumbar puncture and was discharged with influenza like illness. The following day, she developed fever, vomiting, and confusion. The patient returned to the ED and repeat head CT showed cerebral edema. The patient was admitted to the ICU and found to have a 6% *Plasmodium falciparum* load on peripheral blood smear. The patient was treated with parenteral anti-malarial medication and discharged home.

**Discussion:** Malaria is a devastating health problem worldwide, and remains a serious concern in the United States. *P. falciparum* is responsible for the most severe cases of malaria often resulting in hospitalization or death. The majority of cases in this country are identified in patients returning from malarial endemic regions. Chemoprophylaxis during travel does not eliminate the risk of infection due to drug resistance and patient non-adherence. Early diagnosis and treatment is critical. This case is especially significant given the current H1N1 influenza outbreak and the overwhelming attention paid to this and other emerging illnesses. Clinicians need to recognize the potential for identical presentation of severe illnesses such as influenza, meningitis, and malaria and the importance of travel history directing the differential diagnosis.

**Conclusion:** Patients returning from malaria endemic areas who present with fever, headache, and malaise are at high risk for malaria. With a thorough travel history, physicians can recognize the constant threat malaria poses to their patients and make appropriate preventive and therapeutic interventions.