

REFLEX SYMPATHETIC DYSTROPHY: CASE REPORT
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Abstract

Reflex sympathetic dystrophy (RDS) is a poorly defined syndrome, which develops after an initial injury. Spontaneous pain occurs at the site or distal to the injury site. The pain is generally disproportionate to the injury. The other related symptoms are edema, skin blood flow disturbances and abnormal pseudomotor activity that possibly may be mediated by the sympathetic nervous system.

Introduction

Reflex sympathetic dystrophy (RDS) is a poorly defined syndrome that develops after an initial injury. Spontaneous pain occurs at the site or distal to the injury site. The pain is generally disproportionate to the injury. The other related symptoms are edema, skin blood flow disturbances and abnormal pseudomotor activity that possibly may be mediated by the sympathetic nervous system.

Etiology/Stages

There are several etiologies of the disease. Trauma, ischemic, carcinoma, infections, neurologic damage, arthritic diseases have been linked to RSD. The disorder can be classified into three stages. The first stage is the acute stage. Pain is the main symptom of this stage. The Dystrophic stage's symptoms are cool, edematous skin with variable amount of pain. The third and final stage, the Atrophic stage is characterized by shiny, dry skin, nail ridging, demineralizing of bone and possible persistent pain.

Diagnosis

The diagnosis of RSD is primarily clinical. The presence of extreme pain following an injury that is disproportionate to the injury is one of the main symptoms. Erythema, warm, cyanotic skin and nail ridging are also symptoms. The poor definition of the disease creates difficulty for diagnosing physician.

Pathogenesis

The underlying causes said to lead to RSD are numerous as to defy any meaningful attempt at analysis. Pathogenesis of this disease has been defined several times by different scientists. Livingstone et al, 1943, developed the most prominent theory. He suggested that the sympathetic system was the main pathway for RSD. Other theories were developed including Drucker et al, 1959 that revolves around an increased synaptic transmission, while Cooke and Ward, 1998 blamed the neuroactive peptides as the main pathogenesis for the syndrome.

Treatment

Treatment is concentrated on the symptoms of the disease. Sympathetic blockade and alpha/beta blocking agents have been used. Anti-inflammatory agents, analgesics and physical therapy are used to treat the symptoms of the disease. In the past surgeons have attempted surgical sympathectomy; however, this treatment is rarely performed in light of recent discoveries.

Case Report

We will present the case of a 43 y.o. White male. Patient's medical history consists of hypertension, sulfonamide antibiotic allergy, Crohn's disease, short bowel syndrome, chronic diarrhea, trigeminal neuralgia of the left side, RSD of left arm and face, osteoporosis and mild depression.

Medications

Celexa-20mg tid, Restoril-60mg qd, Ambien-20mg tid, Lovenex-100mg bid, Prednisone 20 mg qd, Zantac-300 mg qd, Asacol-800mg bid, k-Dur-10mg bid, Metronidazole-500mg bid, metoclopramide-10mg bid, Duragesic patch-75 bid, Adalat-90 mg qd, Atenolol-50mg qd.

Previous Surgeries

Fourteen bowel resections, Four hernia repairs, removal of benign tumors left shoulder, vasectomy, multiple catheter placements due to poor venous access.

Social History

Married to third wife, three children, unemployed due to medical conditions, currently cares for his son.

Dental Findings

27 teeth present, recent extraction of endo treated #20, area had allodynia and deep bone pain. Generalized mild gingivitis and slight bone loss. Bilateral crepitus TMJ.

Dental Treatment

Adult prophylaxis. Neurosensory stent with 5% lidocaine. Opioid therapy. Duragesic patch/Demerol 150mg and phenergan-50mg for breakthrough pain.

Management Considerations

Opioid therapy concerns-increased usage causing tolerance, dependence and constipation. Possible proliferation of symptomatic areas from dental extractions, TMJ, IM injections. Anesthesia concerns due to poor veins.

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