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Grave's Disease and Urticaria

Chronic urticaria is a common clinical condition associated with itchy wheals and flare-hive skin reactions for more than six weeks with unknown etiology in more than 75% of patients. It is believed to be an autoimmune mediated condition with antibodies against the alpha subunit of the IgE receptor and IgG. Chronic urticaria can coexist with autoimmune thyroid diseases such as Hashimoto thyroiditis and Grave's disease as a link has been reported several years ago. Hypothyroidism and Hashimoto's thyroiditis are more commonly associated than hyperthyroidism and Graves' disease. A reaction against a common antigen shared by the involved tissues, autoantibodies targeting similar epitopes or a cross-reaction between autoantibodies may be the origin of the problem in the development of both diseases. As thyroid function normalized with medical therapy (methimazole) toward Grave's disease, the urticaria also improves. The amelioration of the urticarial symptoms observed may be the result of the reduction in sweating, itching and heat intolerance experienced by the patient when hyperthyroidism is corrected. Thyroid dysfunction is more common in adult patients with chronic urticaria than in children, and in females than in male patients with urticaria. The management of Graves hyperthyrotoxicosis with or without chronic urticaria in children includes medication (methimazole, propylthiouracil) or surgery (total thyroidectomy). The use of radioiodine therapy in children for managing Grave's disease is indicated if the child has a contraindication for surgical management or poor medical management. Prompt treatment of the hyperthyroidism significantly improves the urticaria in the child. Screening for thyroid autoimmunity and function is advisable in all patients with chronic urticaria for the early identification of patients requiring either treatment of underlying thyroid dysfunction or follow-up.

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Acute Scrotal Edema

Acute scrotal edema is a self-limited disease of unknown etiology characterized by edema and erythema of the scrotum and the Darto's fascia without affecting the underlying layers of the scrotum, testicle or vas deferens. It is estimated to occur in almost 20% of all acute scrotal swelling in children. The condition is characterized by rapid onset and development of significant edema and erythema without tenderness or fever. It occurs between the four months and 18 years of age. Children are asymptomatic or complain of minimal scrotal discomfort. Palpation discovers a nontender testis. Affected scrotum is edematous and erythematous appearing from pink to violaceous. It can be unilateral (90%) or bilateral. Involvement of the groin, perineum and low abdomen is commonly observed. It is believed to be an allergic reaction as there is eosinophilia of 2-4% present and a response to antihistamines is occasional obtained. Some children have an associated allergic disorder such as asthma, eczema or dermatitis, though no allergen has been identified. Labs (WBC, urinalysis, urine culture), urethrogram, cystoscopy, and testicular biopsy are usually normal. Ultrasound findings include marked echogenic thickening of the skin and muscles of the scrotum with slightly increased blood flow to the scrotum on color Doppler. Color Doppler documents the equal arterial blood supply to both testis by the anterior and posterior scrotal artery along with scrotal hyperemia consistent with fountain's sign. Differential diagnosis includes testicular torsion, appendage torsion, epididymitis, trauma, incarcerated inguinal hernia, testicular tumor, cellulitis, and vasculitis. The duration of acute scrotal edema manifestation usually ranges from 6 to 72 hours. Management of acute scrotal edema is non-surgical as the condition resolves spontaneously. Depending on the clinical condition analgesia, nonsteroidal anti-inflammatory drugs and antihistamines or antibiotics have been utilized, but mainstem of treatment is observation and reassurance, activity restriction, and scrotal support. Relapse can occur several months or even years after the initial event.

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Longboard Injury

Since the 1960's longboarding has gained significant popularity along with the associated

injuries that such a sport carries in our young people. Longboards are generally 42 to even 80 inches in length compared with regular skateboards that are 30 to 38 inches long. Longboards are perfect for street cruising, allowing for greater travel, higher speed, downhill cruising and carving. Longboarding lends itself to more severe injury than regular skateboard injury. Compared with skateboard injury, longboard patients are significantly older and female. The mean age of patients with longboard injury is 19.8 years with 58% of injuries in adolescents (10 to 16 years) and around 8% in children younger than 10. Dermal injuries and fractures are the most common type of injury followed by traumatic brain injury. Extremity fractures specially those of the clavicles are more commonly seen in longboard injury. Head fracture, traumatic brain injury and intracranial hemorrhage is also more common among longboard patients. In fact, traumatic brain injury is the most serious consequence and most common injury pattern associated with longboarding trauma. Almost 10% of children with longboard injury will need an operation, primarily orthopedic in nature, followed by neurosurgical. The use of a helmet while longboarding is 10%. There is increase recommendation to use safety helmets during longboarding to reduce the severity and incidence of head injury. Almost 50% of children using longboard do not wear a safety helmet. It is estimated that 6% of the population using longboarding might sustain an injury described above. The use of a safety helmet should be promoted by longboard professionals, local longboard shops, promotional events and discounted or free distribution of helmet to reduce significantly the incidence of head injury. Use of safety helmets during skate and longboarding should be introduced as law to reduce the incidence of brain injury.

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