Answers to your questions from our medical experts

1. Age Limit for Electroconvulsive Therapy Consideration

What is the age limit for electroconvulsive therapy (ECT) consideration?

Submitted by: E. J. Franczak, MD, Scarborough, Ontario

There is no upper age limit for ECT consideration, as long as the diagnosis requiring ECT treatment is accurate and the patient does not present with any contraindications to ECT such as a space occupying lesion or a recent MI or a recent cerebrovascular accident.

ECT is also being given to adolescents and young adults between 14- and 20-years-of-age when pharmacotherapy, including augmentation, has failed to relieve the major depression. Also in this population, delirious mania, catatonia and acute delusional psychoses have been successfully treated with ECT, usually after other treatment has failed.

Resource
1. Fink M: Electroconvulsive Therapy. A Guide for Professionals and Their Patients. Oxford University Press 2009.

Answered by: Dr. Hany Bissada

2. Diagnosing and Treating Bed Bug Bites

How are bed bugs bites diagnosed and treated?

Submitted by: Anonymous

The common human bed bug is also known as *Cimex lectularis*. It is a reddish-brown insect that feeds on humans as well as other warm-blooded mammals and birds. Bed bugs require blood meals to survive and usually feed at night.

Clinical clues to bed bug bites include the distribution with exposed areas of the skin on the face, neck, hands or arms most commonly affected. Bites may be arranged in an irregular linear fashion and when seen in a row of three, are sometimes referred to as "breakfast, lunch and dinner." Also, as bed bugs inject an anticoagulant when feeding, hemorrhagic puncta may be seen as well as frank blood on bed sheets. Depending on the degree of sensitization of the individual patient, bite reactions may vary from erythematous to urticarial papules to bullae.

Definite diagnosis is based on recognizing the insect, which measures 5 mm to 7 mm with a broad head and a pair of prominent antennae. However, this may be difficult due to its nocturnal feeding and when not feeding the insect commonly hides in cracks and crevices of headboards and furniture or behind loose wallpaper. These are sites that should be inspected as well as clothing and baggage of travellers.

Treatment is symptomatic for bites with topical steroid creams and systemic sedating H1 receptor antihistamines for itching. Insecticides such as permethrin and malathion can be effective in killing the insects but eradication of a bed bug infestation may require treatment by a professional exterminator.

Answered by: Dr. Richard Haber

3. Amyotrophic Lateral Sclerosis

What is the recommended approach to assessing a suspected patient with amyotrophic lateral sclerosis (ALS)? Are there any therapeutic options?

Submitted by: H. J. Goldstein, MD, North York, Ontario

ALS is a progressive neurodegenerative disorder characterized by loss of upper and motor neurons. Clinically, this presents as fasciculations and muscles atrophy (lower motor neuron signs) in association with hyperreflexia and increased tone (upper motor neuron signs). There are no sensory symptoms. There is no specific test for ALS and diagnosis is made by the above mentioned clinical findings and electrophysiological testing (electromyography [EMG]). There is no specific test for ALS and diagnosis is made by the above mentioned clinical findings as well as specific findings on EMG as define by the El Escorial criteria. Investigations are tailored to eliminate other potential mimickers of ALS such as: cervical polyradiculopathies with myelopathy, thoracic and lumbar spinal stenosis, multifocal motor neuropathy, chronic inflammatory polyneuropathy, myasthenia gravis, multiple sclerosis, spinal muscular atrophy, osteoclastic myeloma and multisystem atrophy. Individuals with suspected ALS should undergo rapid evaluation which includes:

- EMG
- MRI brain and spine routine chemistries
- Serum protein electrophoresis, as well as a chest x-ray

Riluzole 50 mg p.o. b.i.d. has been shown to prolong survival by three months following 18 months of treatment. Some retrospective phase IV studies have suggested a possible four to 19 month benefit. Other therapies are aimed at treating:

- depression,
- dysphagia,
- maintaining nutrition,
- sialorrhea and
- supporting respiratory failure via external devices.

Resources

1. Andersen PM, Borasio GD, Dengler R, et al: EFNS Task Force On Management Of Amyotrophic Lateral Sclerosis: Guidelines For Diagnosing And Clinical Care Of Patients And Relatives. Eur J Neurol 2005; 12(12):921-38.
2. Radunović A, Mitsumoto H, Leigh PN: Clinical Care Of Patients With Amyotrophic Lateral Sclerosis. Lancet Neurol 2007; 6(10):913-25.

Answered by: Dr. Theodore Wein

4. Reducing Bisphosphonates in Patients with Impaired Renal Function

? Should we be reducing the dose of bisphosphonates in osteopenic/osteoporotic post-menopausal women with impaired renal function?

Submitted by: Bob Lewis-Watts, MD, Barrie, Ontario

Treating osteoporosis in the setting of renal failure can be challenging. Direct nephrotoxicity has not been reported following the use of bisphosphonates in doses recommended and approved for osteoporosis. The kidneys excrete approximately 50% of the bisphosphonate dose and the remainder is bound to bone. The use of bisphosphonates in conventional doses is generally safe if creatinine clearance is > 30 ml/min to 35 ml/min, but their use is not well studied in more severe renal failure. It may be reasonable and practical to employ a 50% dose reduction in those patients with advanced renal failure. However, there is really no information about safety and efficacy using either conventional or reduced dosing in this patient population.

Answered by: Dr. Michael Starr

5. Condoms and HPV

? Why do condoms not protect against herpes simplex virus (HSV) and HPV? Is it due to the size of these viruses?

Submitted by: Sara Rudge, MD, Burlington, Ontario

It has long been known that the male latex condom can reduce, albeit not eliminate, the risk of transmission of STIs. The following link, http://www.cdc.gov/nchstp/od/condoms.pdf, provides an excellent handout which can be printed for patients and which summarizes how the transmission of STIs can be prevented. STIs, such as gonorrhea, chlamydia and trichomoniasis, are transmitted when infected urethral or vaginal secretions come in contact with mucosal surfaces, unlike genital ulcer disease (genital HSV, syphilis, chancroid and HPV) where infection is transmitted primarily through contact with infected skin or mucosal surfaces. For HIV, gonorrhea, chlamydia and trichomoniasis, the use of the condom serves to block transmission by preventing contact of the condom wearer's penis and the sex partner's mucosa and genital secretions. With regards to HSV and HPV, however, infection can occur in parts of the genitals that are not covered and therefore not protected by the condom. Laboratory studies have demonstrated that latex condoms provide an essentially impermeable barrier to particles the size of STI pathogens. Therefore, protection of HSV and HPV depends upon the location of the ulceration/lesion which can shed the virus.

Clearly, if the lesion is in an area covered by a condom, transmission will not occur. If, however, the lesion is in an area not covered by the condom, transmission of the virus may occur. Ultimately, this is the most prudent, albeit not the most realistic way to prevent the transmission of STIs. The best means of prevention is by abstinence whereby contact with mucosal surfaces and secretions will be avoided.

Answered by: Dr. John M. Embil

6. Infected Bee or Wasp Stings

Over the summer months, many patients present with inflamed or infected bee/wasp stings. Can you comment on their management (do we apply steroids, antibiotics, ointment, *etc.*)?

Submitted by: Anonymous

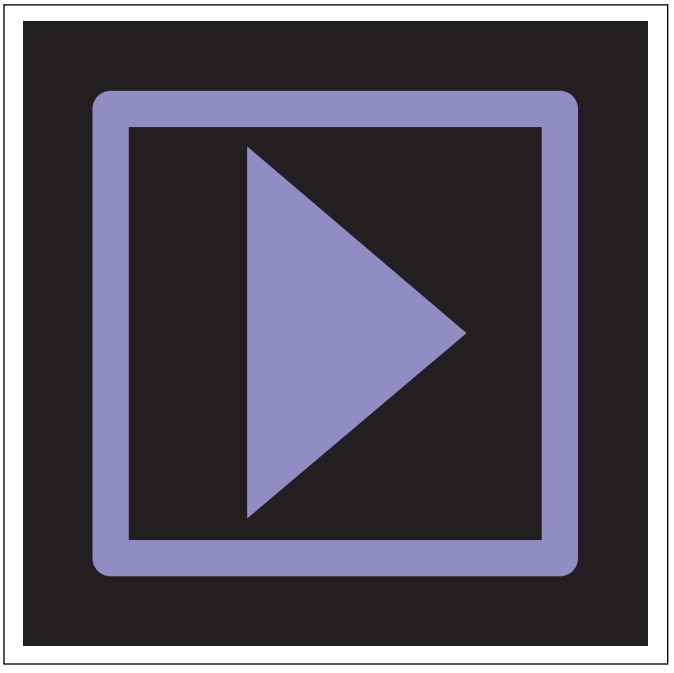
Hymenoptera envenomation can be directly toxic or allergic or both. Toxins can directly produce local or systemic effects and an allergic response to the toxins can produce a localized hypersensitivity reaction or more widespread and potentially fatal anaphylaxis.

In the case of bee stings, the stinger should be removed as soon as possible to prevent further exudation of venom from the venom sac into the skin. A controlled study demonstrated that rapid removal of retained stingers may be performed via any available method (*i.e.*, scraping with a scalpel, credit card or dull knife) and that using tweezers did not increase the amount of envenomation.

Treatment of simple envenomations usually just requires local care. Ice and cold compresses are helpful to decrease swelling. Pain control can usually be achieved with ibuprofen or acetaminophen. Itching can be controlled with oral sedating antihistamines. Treatment with systemic steroids may be necessary if there is extensive local edema.

Otherwise, topical corticosteroids are usually not necessary and topical antibiotics should be reserved for cases of clinical secondary infection.

Answered by: Dr. Richard Haber



7. Remedy for Aphthous Ulcers

What is a good remedy for aphthous ulcers?

Submitted by: Nafisa J. Aptekar, MD, Brampton, Ontario

Aphthous ulcers are one of the most common oral pathologies occurring in 10% of the population. They are usually recurrent and present as small, painful, round ulcers with well defined margins and erythematous haloes and yellow or gray floors. The exact cause remains unknown although there is usually a positive family history. Factors that are associated include physical trauma, stress, fatigue, food allergies, nutritional deficiencies (including vitamin B12, iron and folic acid), immunodeficiency and autoimmunity. Interestingly, the foaming agent in toothpaste (sodium lauryl sulphate) can cause aphthous ulcers in susceptible individuals. Both ulcerative colitis (extraintestinal manifestation) and celiac disease can present with aphthous ulcers in the oral cavity. In addition, chemotherapy agents can result in aphthous ulcer formation. Infective causes, including herpes simplex, should also be considered.

Treatment includes reversing any known underlying factors and improving oral hygiene. There are both non-prescription and prescription treatments. Non-prescription treatments include liquorice root extract patches, local anesthetic application and antimicrobial mouthwashes. All of these may reduce the duration of the ulcers. The mainstay of prescription treatment is topical steroid application; this is effective, however, contraindicated if the underlying cause is thought to be viral. In this case, antiviral medication may be of value if the ulcers are both severe and multiple. Topical tetracyclines may reduce the severity of ulceration, but they do not alter the recurrence rate. In severe, recurrent cases systemic immunomodulators may be considered. A wide spectrum of agents has been suggested as beneficial, but few studies have been performed to assess their efficacy. Thalidomide is effective but use of this medication must be weighed with its side-effects which include teratogenicity, neuropathy and other adverse effects. Finally, silver nitrate can be used to cauterize the ulcers, destroying the underlying sensory nerve endings. Although this relieves the pain, it does not reduce overall healing time.

Answered by: Dr. Jonathan Irish and Dr. Emma Barker

8. Anticoagulation for Thrombophlebitis of Proximal Great Saphenous Vein

? Should a blood clot in the great saphenous vein, which ends at the bifurcation of the common femoral, be treated as a superficial phlebitis or as a deep vein thrombosis (DVT)?

Submitted by: Dawn Reid, MD, Lindsay, Ontario

Superficial thrombophlebitis is often due to an IV cannula or other trauma and does not require anticoagulation as there is no significant risk of pulmonary embolism. Although the great saphenous vein is a superficial vein, the risk of progression to DVT is higher when superficial venous thrombosis is present in the proximal great saphenous vein near the saphenofemoral junction. In one report, seven of 21 patients (33%) who had thrombophlebitis of the great saphenous vein involving the above-knee segment had a lung perfusion scan showing high probability of pulmonary embolism.[1]

Patients found to have a clot in the proximal great saphenous vein near the saphenofemoral junction should be anticoagulated. Other patients with above-the-knee superficial phlebitis of the great saphenous vein should undergo repeat ultrasonography after three to seven days to exclude progression of clot.

Reference
1. Verlato F, Zucchetta P, Prandoni P, et al: An Unexpectedly High Rate Of Pulmonary Embolism In Patients With Superficial Thrombophlebitis Of The Thigh. J Vasc Surg 1999; 30(6):1113-5.

Answered by: Dr. Bibiana Cujec

9. Follow-up for Polyarthritis Caused By Parvovirus B19

? Is there any follow-up recommendation for a patient who had a recent episode of polyarthritis caused by parvovirus B19 infection?

Submitted by: Araghi Golberg, MD, Richmond Hill, Ontario

It has been speculated that parvovirus B19 may play a role in chronic arthritic conditions. There have been conflicting reports which make our understanding of parvovirus associated arthropathy difficult. The vast majority of persons infected with parvovirus B19 have a benign and self-limiting infection that results in lifelong immunity and requires no further treatment beyond symptomatic relief. Persons who have had polyarthritis usually respond to NSAIDs. In a small subgroup of patients with joint abnormalities, the symptoms may persist for months to years.

Answered by: Dr. John M. Embil

10. Recommended Work-Up for Urticaria

What is the current recommended work-up for urticaria?

Submitted by: Karen Edstrom, MD, Hamilton, Ontario

Episodes of simple urticaria lasting less than six weeks rarely require investigations, especially if patients respond to antihistamine therapy.

For atypical or chronic cases (episodes lasting more than six weeks), investigations and referral to a dermatologist and/or allergist may be indicated.

Current guidelines suggest some of the following investigations in patients with chronic urticaria:[1]

- Blood tests:
  - Associated autoimmune diseases:
    - Thyroid function
    - Thyroid autoantibodies
    - Diabetes mellitus
    - Pernicious anemia
    - Complete blood count
  - Erythrocyte sedimentation rate may be raised in urticarial vasculitis
  - C4 (can be low in urticarial vasculitis, C1 esterase inhibitor deficiency)
- Skin biopsy (if individual lesions last > 24 hours to rule out urticarial vasculitis)
- Challenges for physical urticarias (*e.g.*, rubbing back with blunt object for dermatographism)
- Measurement of histamine-releasing autoantibodies
- Skin prick testing (*e.g.*, contact urticaria, some environmental and dietary causes) and radioallergosorbent tests of blood

Although there is no confirmatory studies that show a significant association between new-onset chronic urticaria in older patients (*e.g.*, ≥ 50-years-old) and malignancy, screening is often done. In addition to the above, consider appropriate age-related cancer screening, serum protein electrophoresis, chest x-ray and the need for CT scans.

Reference

1. Grattan CE, Humphreys F; British Association of Dermatologists Therapy Guidelines and Audit Subcommittee: Guidelines For Evaluation And Management Of Urticaria In Adults And Children. Br J Dermatol 2007; 157(6):1116-23.

Answered by: Dr. John Kraft and Dr. Charles Lynde

11. Treatments for Achilles Tendonitis

? Can the injection of steroids in a case of Achilles tendonitis cause lysis and separation of tendon from bone? What alternative treatments do you advise?

Submitted by: Rajen Ramgoolam, MD, Winnipeg, Manitoba

The Achilles tendon is vulnerable to rupture when inflamed and it has been assumed that corticosteroid injection could worsen this possibility. This assumption is based solely on uncontrolled case studies and anecdotal reports and there have been no well-controlled prospective clinical trials. One safety study that was done on 43 patients using fluoroscopy guided peritendinous steroid injection with a minimum follow-up period of two years, showed no major complications. Fourty per cent of patients improved, 53% showed no change and 7% had a worsening of their condition. However, until we have larger sample studies to support safety, corticosteroid injection at this site remains controversial and should only be considered in selected patients using fluoroscopic guidance by an experienced radiologist.

Regarding alternative treatments, in the early phases, Achilles tendonitis often responds favourably to conservative treatment with rest or modified activity, NSAIDs, icing, gentle stretching, heel lift and sometimes splinting. Physiotherapy modalities can also be useful. Surgery may be an option for those who fail conservative treatment.

Resources
1. NOF's New Clinician's Guide to Prevention and Treatment of Osteoporosis: www.nof.org/professionals/Clinicians_Guide.htm. Accessed: April 18, 2008.
2. Farhat G, Yamout B, Mikati MA, et al: Effect Of Antiepileptic Drugs On Bone Density In Ambulatory Patients. Neurology 2002; 58(9):1348-53.

Answered by: Dr. Michael Starr and Dr. Ahmad Al-Enizi

12. Melatonin for Insomnia

? Is melatonin a good treatment for insomnia?

Submitted by: M. E. Robertson, MD, Kingston, Ontario

The hormone melatonin is the primary controller of circadian (day/night) biorhythms. Most of the melatonin in the human body is secreted by the pineal gland, which receives information from the optic nerve about the ambient light level and adjusts its melatonin output accordingly.

Irregularities in melatonin production can adversely affect the circadian biorhythms causing sleep problems, lethargy and mood disorders. Accordingly, melatonin has been used as a therapeutic agent in the treatment of circadian phase disturbances such as jet lag. Also, melatonin can be used in the treatment of insomnia, including initial and middle insomnia. It should be noted that melatonin is available OTC as a natural product in pharmacies and in health food stores. It is not licensed as an approved drug by Health Canada.

Answered by: Dr. Hany Bissada

13. Keratosis Pilaris

Keratosis pilaris: no good treatment available—any suggestions?

Submitted by: Michel Bernier, MD, Sainte-Foy, Quebec

Keratosis pilaris is a common genetic disorder of keratinization of hair follicles. As such, there is no cure for this condition and treatment is aimed at improving the clinical appearance or treating pruritus if present. An explanation of the benign but chronic nature of the disease may be all that is necessary.

If the patient wishes treatment, I find the most effective medical therapies to be keratolytic agents. Salicylic acid containing agents can be used. However, most commonly I suggest a trial of lactic acid (12%) or urea (10% to 20%). Tretinoin can also be helpful, prescribed as 0.05% cream once every day before bedtime. However, this treatment can cause irritation in some patients. Oral retinoids such as isotretinoin or acitretin could be used in severe cases but are best avoided because of potential teratogenicity and side-effects in a benign condition.

Physical modalities can also be considered including exfoliation with a loofah sponge, chemical peels or microdermabrasion.

When keratosis pilaris is itchy, a combination of 10% urea and 1% hydrocortisone can be a helpful treatment.

Answered by: Dr. Richard Haber

14. West Nile Virus

Is there a blood test available to determine immunity to West Nile virus?

Submitted by: Denise Coulas, MD, Barry's Bay, Ontario

The Public Health Agency of Canada maintains a national surveillance system for infection with West Nile virus. The following link http://www.phac-aspc.gc.ca/wnv-vwn/hmncasedef-eng.php provides a case definition for West Nile virus neurological symptoms and West Nile Virus non-neurological syndrome in addition to the diagnostic test criteria for both. Serologic testing for exposure to the West Nile virus is by means of detecting IgM and IgG antibodies. It is important to note that the West Nile virus IgM antibody may persist for more than one year and the demonstration of these antibodies in a patient's serum, particularly in persons who reside in endemic areas may not necessarily represent a diagnosis of an acute West Nile virus infection. Therefore, collection of acute and convalescent serum six to eight weeks apart, will help establish whether a person has had an acute infection. Clearly, the presence of IgG in the serum will help distinguish between current and past infections. If specific questions exist about testing for West Nile virus, it is recommended to contact the local Medical Officer of Health, or the Provincial Laboratory in your jurisdiction for the different types of tests and when to obtain specimens.

Answered by: Dr. John M. Embil

15. EKGs for High School Athletes

Should all high school athletes have an EKG? What EKG findings should signal a concern for referral?

Submitted by: Anonymous

Routine pre-participation cardiac screening with ECG is not recommended as the likelihood of a significant cardiac abnormality is very low, the cost would be very high and there would be many false positive results which would generate needless anxiety.[1]

Sudden cardiac death occurs in 1:100,000 to 1:300,000 young athletes, mainly young men. Conditions which cause sudden cardiac death in high school athletes include:

- hypertrophic cardiomyopathy,
- arrhythmogenic right ventricular cardiomyopathy,
- coronary artery abnormalities,
- long QT interval,
- Wolff-Parkinson-White syndrome,
- myocarditis,
- aortic rupture in patients with Marfan syndrome,
- commotio cordis (precordial impact during vulnerable phase of cardiac cycle) and
- congenital aortic stenosis.

Screening with EKG should be done in high school students with a family history of sudden cardiac death < 50-years-of-age, family history of hypertrophic or dilated cardiomyopathy, long extremities suggestive of Marfan's syndrome, a heart murmur which does not sound like an innocent systolic flow murmur, or symptoms of exertional chest pain, palpitations, excessive dyspnea, syncope/near-syncope.

ECG abnormalities such as left ventricular hypertrophy, abnormal T wave inversions and bundle branch block would warrant referral to a cardiologist and further investigation with an ECHO. Long QT interval or ventricular pre-excitation would also warrant referral to a cardiologist.

Reference

1. Maron BJ, Douglas PS, Graham TP, et al: Task Force 1: Preparticipation screening And Diagnosis Of Cardiovascular Disease In Athletes. J Am Coll Cardiol 2005; 45(8):1322-6.

Answered by: Dr. Bibiana Cujec

Sudden cardiac death occurs in 1:100,000 to 1:300,000 young athletes, mainly young men.

16. Prevention of Chronic Low Grade Allergic Sinusitis

Please provide suggestions for the prevention of chronic low grade allergic sinusitis.

Submitted by: Colin Leech-Porter, MD, Vancouver, British Columbia

To prevent chronic allergic sinusitis, knowledge about factors that cause allergic sinusitis are essential. The most common cause of allergic sinusitis is an allergic response to airborne allergens, like pollen, house dust mites, mold or dander of pets. Allergic sinusitis patients exhibit symptoms like sneezing, clear rhinorrhea, congestion and nasal pruritus.

Allergy against pollen, also known as hay fever, is mostly due to seasonal plants like ragweed, oak, birch, hickory and early summer grasses. Characteristically, hay fever arises from mid-spring to early summer. It is essentially to know that the amount of pollen in the air depends on the weather—hot, dry and windy weather are more likely to have increased amounts of pollen in the air than cool, damp, rainy days when most pollen is washed to the ground. Secondly, dust mites can be a significant factor for allergic sinusitis.

To remove dust mites frequent dusting and vacuuming is essential. All mattresses should be covered by dust mite-resistant covers and remove all non-synthetic carpets and pillows. Keep the room temperature as low as possible because room heating during wintertime increases growth of dust mites. In some cases molds can induce mild chronic allergic sinusitis. To avoid symptoms, keep an eye on all potential mold sources like plants, old shoes or curtains. Bathrooms, furnaces and refrigerators have to be clean and use dehumidifiers to keep basements dry. In contrast, use of a humidifier to add moisture to the air may help prevent nasal dryness and sinusitis. Again, the humidifier must stay clean and free of mold with thorough and frequent cleaning.

Pet allergies are most commonly associated with cats, dogs, rodents and horses. Although pet allergy is most often a "household problem," it can also affect people who work with animals on farms, in laboratories and in zoos. If you have a pet allergy, the best strategy is to avoid or reduce exposure to animals as much as possible.

In daily life try to avoid cigarette smoke, polluted air and particularly upper respiratory infections by washing your hands frequently. The take home message is that avoidance of factors that cause allergic sinusitis is of capital importance.

Answered by: Dr. Jonathan Irish and Dr. Emma Barker

17. Topical Treatment for Nail Fungus

Is there an effective topical treatment for nail fungus?

Submitted by: Wesley Choy, MD, Burnaby, British Columbia

Ciclopirox olamine is an antifungal agent that is active against dermatophytes and yeasts. Ciclopirox olamine 8% nail lacquer, the only topical agent approved for treating onychomychosis, is applied nightly for one week then removed with alcohol weekly and repeated. Treatment requires prolonged daily use for nine to 12 months. The long treatment period is due to minimal penetration of the drug into the nail and the slow growth of toenails. It is generally well-tolerated and extremely safe. Only rarely is there local burning or itch during application. With meticulous, prolonged use, cure rates are < 30%.

Systemic antifungal agents (*e.g.*, terbinafine, itraconazole) are much more effective, with cure rates from 60% to 80% with only three to four months of treatment. However, systemic antifungals require careful use. Some are contraindicated in patients with heart, liver and kidney disease, require close monitoring with regular blood tests and have a multitude of potentially serious drug interactions. Topical ciclopirox nail lacquer is a good option for patients in whom systemic antifungals are contraindicated or do not wish systemic treatments and their possible side-effects.

Answered by: Dr. John Kraft and Dr. Charles Lynde

18. LED Light Therapy for Seasonal Affective Disorder

Are LED light books as effective as 10,000 lux light boxes for seasonal affective disorder?

Submitted by: Sandi C. Frank, MD, Edmonton, Alberta

According to one pilot randomized controlled trial, the Litebook LED device was significantly superior to a credible placebo control condition for the treatment of seasonal affective disorder. However, this was a small-sample clinical trial and must be interpreted with caution. A larger sample size trial would provide more definitive information about the efficacy and safety of this LED device.

Resource

1. Desan PH, Weinstein AJ, Michalak EE, et al: A Controlled Trial of the Litebook Light-Emitting Diode (LED) Light Therapy Device for Treatment of Seasonal Affective Disorder (SAD). BMC Psychiatry 2007; 7:38.

Answered by: Dr. Hany Bissada

19. Topical Treatments for Basal Cell Carcinoma

Are there any new topical treatments for basal cell carcinoma (BCC)?

Submitted by: Bradley Atkinson, MD, Sheet Harbour, Nova Scotia

Topical treatment for BCC is much more effective for the superficial type of BCC than for nodular BCC, as the topical therapy penetrates much better in superficial tumours.

Topical 5% imiquimod cream is approved in Canada for treating superficial BCCs. It is usually applied overnight five times weekly for six weeks.

Clearance rates vary in the literature but can be as high as 90% at 12 weeks although are usually slightly lower at one year follow-up. If one uses this treatment, it is important to carefully follow the patient as recurrences are best treated surgically.

Five per cent 5-fluorouracil cream is approved by the FDA for treating superficial BCCs. It is usually applied twice daily for six to 12 weeks. Clearance rates have been similar to imiquimod cream.

The major advantages of these treatments are avoidance of surgery and significant scarring.

The major adverse effect of both these topical therapies is application site and local skin reactions including erythema, crusting and erosions.

Answered by: Dr. Richard Haber

20. NSAIDs for Shoulder Tendinitis

How useful are NSAIDs for tendinitis of the shoulder? Why do studies in the literature not support this often-prescribed treatment?

Submitted by: Andre Louis Kiss, MD, Varennes, Quebec

Prevalence studies indicate that 16% to 34% of the general population suffer from shoulder pain, of which, rotator cuff tendinopathy comprises a sizeable portion of this subpopulation. NSAID therapy for tendinopathy is a frequent initial choice. However, during the period of acute injury, there has been debate whether blocking the inflammatory response inhibits healing. Unfortunately there are no well-controlled studies that have addressed this specific issue. However, the use of NSAIDs in acute shoulder tendinitis has been shown to reduce pain in many placebo-controlled studies. Based on that, patients initially can be given a short course of NSAIDs. Thereafter, patients may use an NSAID for occasional analgesia if they find the medication effective. It is also important to consider other treatment modalities such as glucocorticoid injections or physiotherapy, especially in patients who fail to respond to NSAIDs.

Resource

1. Andres BM, Murrell GA: Treatment Of Tendinopathy: What Works, What Does Not, And What Is On The Horizon. Clin Orthop Relat Res 2008; 466(7):1539-54.

Answered by: Dr. Michael Starr and Dr. Ahmad Al-Enizi

21. Safety of ACE Inhibitor Use in Patients with Mild Aortic Stenosis

Can ACE inhibitors be safely used in patients with mild aortic stenosis?

Submitted by: Linda Lee, MD, Kitchener, Ontario

Aortic stenosis is common in elderly patients, many of whom also have hypertension. It is important to control hypertension in the elderly with a combination of diuretic, ACE inhibitor (or ARB) and calcium channel blocker in order to decrease the risk of stroke and vascular events and to improve survival even in patients > 80-years-of-age.[1] There is no concern about using ACE inhibitors for control of hypertension or management of heart failure in patients with mild or moderate aortic stenosis. These patients have two stenoses in series, at the aortic valvular level as well as at the arteriolar level. An ACE inhibitor will lower systemic vascular resistance and decrease left ventricular afterload improving cardiac output without excessive dropping of the BP.

One should be cautious about using antihypertensive drugs in patients with severe symptomatic aortic stenosis as hypotension may result because of vasodilatation in the setting of a severe fixed obstruction at the valve level. If the patient has significant hypertension (BP > 160/100 mmHg) as well as severe aortic stenosis, my preferred antihypertensive regimen would be a diuretic followed by an ACE inhibitor, or ARB if necessary, with the addition of a calcium channel blocker if required to achieve a systolic pressure < 140 mmHg to 160 mmHg. It is important to measure the standing BP as many elderly patients have orthostatic hypotension which must be taken into consideration when titrating antihypertensive therapy.

Reference

1. Beckett NS, Peters R, Fletcher AE, et al: Treatment Of Hypertension In Patients 80 Years Of Age Or Older. N Engl J Med 2008; 358(18):1887-98.

Answered by: Dr. Bibiana Cujec

22. Cause of Plantar Fasciitis

What is the real cause of plantar fasciitis? What is the best treatment and does it depend on the cause?

Submitted by: Lynn Crosby, MD, Halifax, Nova Scotia

Plantar fasciitis is a common condition affecting up to 10% of people, including both active and sedentary adults. It presents as inferior heel pain, especially in the morning, after periods of rest and can worsen with and limit daily activity. It is generally a clinical diagnosis. The pain often persists for months to years and results from cumulative overload stress to the plantar fascia. Risk factors include obesity and people who do lots of standing or walking.

Most patients with plantar fasciitis eventually improve within several years. Conservative measures are best for most patients and include the use of ice, NSAIDs, shoe inserts (*e.g.*, heel padding) and stretching. The plantar fascia is stretched by pulling the toes back towards the shin and holding for at least 10 seconds and performing 10 sets daily.

If conservative measures fail, the physician may choose to refer the patient to a specialist (*e.g.*, orthopedic surgeon) for further therapy and possible surgery. Night splints maintain toe extension and ankle dorsiflexion keeping a constant stretch on the plantar fascia. Corticosteroid injections or dexamethasone iontophoresis may be more risky regarding plantar fascia rupture than beneficial. Extracorporeal shock wave therapy has shown some benefit in runners with heel pain lasting for more than one year. Casting with well-padded fiberglass walking casts with the ankle in neutral to slight dorsiflexion and the toe plate in extension can be a helpful alternative to surgery. Surgery may be an option if a patient has failed three months of conservative treatment. The main issue with surgery is the recovery period.

Answered by: Dr. John Kraft and Dr. Charles Lynde

23. Diagnosing Burning Mouth Syndrome

I have a patient with ongoing hypersensitivity to his tongue and lips. His vitamin B12 levels are normal, TSH normal and there are no signs of claudication. How do you diagnose burning mouth syndrome?

Submitted by: Jan Malherbe, MD, Salt Spring Island, British Columbia

Burning mouth syndrome belongs to intraoral pain disorders where the etiology is still unclear. Mostly the oral mucosa occurs without any clinical signs. As per your patient's description, particularly the tip of the tongue, anterior hard palate and oral lower lip are affected. Diagnosis of burning mouth syndrome is a "step-by-step diagnosis" meaning that it can only be made by exclusion, after other causes have been ruled out.

In clinical practice, the majority of burning mouth syndrome patients are climacteric women. The reasons may be the deficiency of estrogen.

Other causes that may contribute to this disorder are:

- Mechanical (tongue abrasion or pressing against teeth or dentures)
- Infection (*Candida albicans*, herpes simplex)
- Systemic disease (gastroesophageal reflux disease, hypothyroidism, cirrhosis of the liver, Sjögren's syndrome, diabetes mellitus, deficiency of vitamin B12, folic acid and iron)
- Psychogenic (chronic anxiety or depression)
- Iatrogenic (dry mouth or damaged cranial nerves associated with taste after radiotherapy, adverse reaction against antidepressants or ACE inhibitors)
- Usage of toothpastes that contain sodium lauryl sulfate

Treatment of burning mouth syndrome should primarily focus on removal of all mechanical problems and controlling of all infectious, systemic and psychological diseases. In case of dry mouth, patients should drink enough water and may use commercial oral mucosal gels and ointments. As mostly menopausal women are affected, hormone replacement therapy should be carefully taken into account. Recent studies showed that hormone replacement therapy with estrogens relieved symptoms in only 50% of patients treated. If no primary cause can be detected, low dosages of benzodiazepines, tricyclic antidepressants or anticonvulsants may prove to be effective treatments. Dx

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