Consultant's Corner

Practical Answers To Your Everyday Questions

Spontaneous Coronary Artery Dissection

1. What are the causes of acute dissection of coronary artery in a 34-year-old athlete male with no risk factor prevention?

Question submitted by:
Dr. Marc Richer
Montreal, Quebec

Spontaneous coronary artery dissection (SCAD) is an unusual cause of acute myocardial ischemia. It is more common in younger patients and in women (especially during peripartum period) and has a propensity to affect patients without traditional CV risk factors. The tendency to affect women in high estrogenic states suggests that the hormonal milieu and thrombogenic status of the patient may play etiological roles in SCAD. Similar factors have been implicated in increased CV event rates observed in young male patients undergoing chemotherapy for testicular cancer.

SCAD involves hemorrhagic separation of the media resulting in a false lumen that may heal spontaneously or occlude the true lumen resulting in distal ischemia. Some may occlude, some may thrombose the false lumen and a few will re-endothelialize and become chronic with two lumens. Conservatively managed SCADs may variably be associated with a prolonged asymptomatic period despite remaining angiographically unchanged with some eventually requiring revascularization.

Answered by:
Dr. Chi-Ming Chow

Prescribing Bisphosphonates

2. How long should bisphosphonates be prescribed?

Question submitted by:
Dr. Earle Weisenburger
Nanaimo, British Columbia

There is no consensus on the length of treatment with bisphosphonates; therefore, this must be assessed on an individual basis. Patients with a high 10-year fracture risk (*i.e.*, > 20%) are often treated indefinitely. Alendronate and risedronate have demonstrated efficacy for 10 and seven years, respectively. There appears to be some residual BMD and fracture benefit with both of these agents. Therefore, it may be reasonable to stop therapy after five years and reassess clinical and radiological indicators to justify restarting therapy over the ensuing few years.

Answered by:
Dr. Elizabeth Hazel

Treatment of Pruritus Ani

3. Is there anything new in the treatment of pruritus ani?

Question submitted by:
Dr. B. Lynn Crosby
Halifax, Nova Scotia

The treatment of pruritus ani is often a difficult, frustrating experience. There are many causes of itching to be ruled out—hemorrhoids, allergic contact dermatitis, pinworms, psoriasis, lichen sclerosis—to name a few. Therefore, a careful history and examination are needed. Topical gentle skin care, diet moderation, barrier pastes as well as topical steroids used sparingly can help. Newer agents of advantage include the calcineurin inhibitors, tacrolimus and pimecrolimus, which can avoid skin atrophy and can avoid complications of steroid therapy.

Some reports of success using capsaicin have surfaced in the least few years. The majority of patients respond to behaviour modification. This involves gentle cleansing after bowel movements and prevention of abrasion and over drying of the anal mucose.

Answered by:
Dr. Scott Murray

Attention-Deficit/Hyperactivity Disorder

4. How common is attention-deficit/hyperactivity disorder (ADHD) in children? In adults?

Question submitted by:
Dr. Len Grbac
Etobicoke, Ontario

ADHD is a very common problem seen in primary care. Its worldwide prevalence, according to a review in the Lancet, is estimated to be between 8% and 12%. Estimates of prevalence in North America have varied widely. Other figures are considerably lower: an analysis using data from the US National Health Interview Survey found the overall prevalence to be 4.19% in boys and 1.77% in girls. Even in different geographic areas in the United States we see a differing trend in ADHD diagnosis and medication according to the Centers for Disease Control, with a range of < 5% to > 10%, depending on the locale. In adults, the incidence of patients being diagnosed is rising as the condition becomes more recognized and accepted.

It is essential as practitioners to be aware when assessing ADHD patients to focus on, Family history, Onset, Course, Under-functioning, Symptoms (FOCUS) and to also be aware that mental health comorbidities may exist.

Answered by:
Prof. Joel Lamoure

Omega 3 for Increased Triglycerides

5.

Do we use Omega 3 for increased triglycerides?

Question submitted by:
Dr. Matthew Kim
Toronto, Ontario

The active forms of the Omega 3 fatty acids, eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), have been used for a variety of conditions from dyslipidemia to psoriasis to schizophrenia. These fish oils are important for the production of nerve tissue, hormones and cellular membranes. EPA is converted into prostaglandins which have anti-inflammatory activities. They also help lower BP, reduce elevated cholesterol and triglycerides and prevent atherosclerotic plaque formation. Fish oil in high doses can reduce the level of triglycerides through the inhibition of the synthesis of very low-density lipoprotein (VLDL)-triglycerides and apolipoprotein B. However, the dose required to treat significant triglyceridemia and achieve a reduction of triglycerides by > 40% is quite high. Doses > 2g to 6g are often required. A typical OTC fish oil capsule will only provide 200 mg to 400 mg of DHA/EPA. A concentrated form providing 1000 mg of the active fatty acids is available in the US however. Thus, these do have a role in the treatment of hypertriglyceridemia, however the number of tablets that the patients need to take becomes excessive, often resulting in a fishy odour and tends to be expensive as well. Fibrates are generally quite effective in reducing triglycerides and often lead to a reduction between 40% to 50%. Niacin is another excellent alternative.

Answered by:
Dr. Hasnain Khandwala

Autism in Siblings

6.

What is the recurrence risk for autism in a sibling of a child with autistic spectrum disorder?

Question submitted by:
Dr. Roberto Mendoza
Toronto, Ontario

There are two groups of children with autism, those with identifiable genetic disorders for whom risk among siblings can be better quantified and children with autism who do not have an identified genetic disorder. The majority of children with autism (90% to 95%) do not have an identified genetic disorder. In the case of children with autism but no identified genetic disorder, the classical answer is that the recurrence risk for autism in a sibling of a child with autism is roughly 4% to 8%, with the UCLA-University of Utah study suggesting that this risk is slightly higher if the previously born child with autism is a girl. It has been suggested that the overall risk for cognitive or language delay in siblings of children with autism is 10%. This is strongly suggestive of multifactorial inheritance.

Answered by:
Dr. Michael Rieder

Antiviral for Hepatitis B Virus

7. What is the antiviral of choice for Hepatitis B virus (HBV)?

Question submitted by:
Dr. Steve Sullivan
Victoria, British Columbia

Therapy for Hepatitis B is recommended for patients with evidence of chronic active disease. Various algorithms have been proposed and recently the number of therapeutic options has exploded. There is no antiviral of choice for all patients with HBV. The choice of antiviral depends on each clinical scenario and needs to be tailored to the individual. Special attention needs to be paid to patients with cirrhosis. Currently, interferon alfa, lamivudine, telbivudine, adefovir, entecavir and tenofovir are the main drugs approved globally for the treatment of Hepatitis B. Ongoing trials are investigating new types of medications and combination therapy.

Answered by:
Dr. Jerry McGrath

Malaria Vaccine

8. What is the current status and prognosis for development of the malaria vaccine?

Question submitted by:
Dr. Peter Newman
Toronto, Ontario

Progress on a malaria vaccine has been very slow, but significant. The conceptual framework is based on early studies showing that passive transfer of antibodies from semi-immune adults greatly reduces the severity of clinical complications of malaria. Unfortunately, true sterilizing immunity does not develop after natural infection, creating a major theoretical obstacle to vaccine development. Determining which epitopes are protective and developing a vaccine has been difficult. Current subunit vaccines do not reduce parasitemia, so this endpoint is not useful. Prevention of severe complications is desirable, but difficult to assess in this type of complex multisystem disorder. The first vaccine, SPf66, did not confer substantial protection in Phase 3 trials. More recently, the RTS, S vaccine had a nearly 60% efficacy in preventing severe *Plasmodium falciparum* disease in children and protection lasted several months. This may not sound dramatic, but even such a partially effective vaccine may have public health value. More importantly, it provides a building block for the next generation of vaccine discovery.

Answered by:
Dr. Michael Libman

Contraception for Women Over Forty

9.

What is the best choice of contraception for women > 40 years-old?

Question submitted by:
Dr. Vincent Yuen
Regina, Saskatchewan

There is no one good answer. After 40-years-of-age, fertility is significantly decreased but pregnancy is still possible with increased risks of pregnancy related and maternal complications.

In making the decision for contraception > 40-years-old, a thorough review of other medical comorbidities such as hypertension, cancer, cerebrovascular and CV diseases is paramount. Advanced age is not a contraindication to any particular birth control method such as the OC pill, but smoking and other diseases must be excluded, particularly as chronic diseases are more prevalent with advancing age. Lifestyle choices and risks of STIs must also be considered. Irreversible forms of contraception, such as vasectomy and tubal ligation, address fertility. But reversible contraception such as the progesterone IUD and OC pill offer non-contraceptive benefits that may be attractive to the patient > 40-years-old with heavy menses and concern about the perimenopause and hormone deprivation. Ultimately, a decision regarding contraception is based on contraindications, side-effects and other associated symptoms and must be individualized to the patient and her unique circumstance.

Answered by:
Dr. Cathy Popadiuk

10. ACE Inhibitors for Patients with Past Anaphylaxis

Should ACE inhibitors not be used in patients with past history of anaphylaxis?

Question submitted by:
Dr. Steve Choi
Oakville, Ontario

A number of cofactors are known to intensify anaphylactic reactions. These cofactors may cause an otherwise mild reaction to become severe, near-fatal or fatal. Exercise, alcohol ingestion, use of ASA, NSAIDs or β-blockers are recognized cofactors which may worsen allergic reactions.

ACE inhibitors are a special case in point. There is compelling evidence suggesting that ACE inhibitors will worsen allergic reactions to insect stings in individuals with allergy to hymenoptera venoms. Similar evidence has not yet been published for anaphylaxis to other causes, but it does stand to reason that the risk in other types of IgE-mediated reactions will be similar. For this reason, I recommend that ACE inhibitors not be used in patients with anaphylactic sensitivity to any allergen.

The question of the safety of ARB use in patients with a history of anaphylaxis often comes up. There is currently no evidence either supporting or refuting the safety of ARBs in these patients.

Answered by:
Dr. Peter Vadas

11. Atrial Fibrillation Patients

For patients with atrial fibrillation (AF) and that are being treated for osteoporosis, should there be any concerns?

Question submitted by:
Dr. Tom Echlin
Windsor, Ontario

In May 2007, two studies described increased rates of AF among osteoporotic women aged 65-to 89-years-old receiving alendronate or zoledronic acid therapy. Although one large study of zoledronic acid showed a statistically significant increase in AF risk, the incidence of AF was rare overall, with most studies reporting two or fewer cases (absolute difference vs. placebo, 0% to 0.3%). In November 2008, US FDA has issued the following MedWatch statement:

"The review of clinical trial data has revealed no clear association between overall bisphosphonate exposure and the rate of serious or non-serious AF. In addition, increasing the dose or duration of therapy was not linked to an increased risk for AF. Healthcare professionals should therefore not alter their prescribing patterns for bisphosphonates and patients should not stop taking their medication."[1]

Reference
1. U.S. Food and Drug Administration. www.fda.gov. Accessed November 12, 2008.

Answered by:
Dr. Chi-Ming Chow

Broken Nose

12.

When dealing with patients with a broken nose, how quickly do they need to see the specialist for correction?

Question submitted by:
Dr. Melissa Kolkas
Calgary, Alberta

Fracture of the nose is the most common facial fracture and is commonly associated with other facial fractures. The severity of the fracture depends on the direction, force and type of the blow. A severe, comminuted fracture may cause extreme swelling or bleeding. Inadequate or delayed treatment may cause permanent nasal displacement, septal deviation and obstruction.

Immediately after the injury, soft-tissue swelling may quickly obscure the break. After several hours of pain, periorbital ecchymoses and nasal displacement may be visible. A possible complication is septal hematoma, which may lead to abscess formation, resulting in vascular septic necrosis and saddle nose deformity.

Plain x-ray of the nose will confirm the fracture. The diagnosis also requires a full history, including the cause of the injury and the amount of bleeding. If there is a history of fluid drainage from the nose, CT scan may be necessary to rule out cerebrospinal fluid (CSF) leak and basal skull fracture.

Treatment restores normal facial appearance and re-establishes the nasal airway after the swelling subsides. Reduction of the fracture is followed by immobilization. This is maintained with the use of intranasal packing and an external splint. Reduction is best accomplished in the OR under local anesthesia for adults and general anesthesia for children. Early or late repair is possible, but most physicians prefer to delay reduction for five to 10 days after the injury, especially if severe swelling is present.

Answered by:
Dr. Ted Tewfik

Treating Molluscum Contagiosum

13. What is the best treatment for molluscum contagiosum?

Question submitted by:
Dr. Stacey Saunders
Burin, Ontario

Since molluscum contagiosum is a self-limited condition and often occurs in kids, my usual favorite treatment is observation—in other words, just reassurance. However, if lesions are troublesome and treatment is desired, I usually find cryotherapy—carefully applied to avoid scarring—to be the most direct and effective treatment. Other alternatives, for patients who are reluctant to experience the pain associated with cryotherapy, are curettage, cantharidin, topical salicylic acid and imiquimod.

Answered by:
Dr. Scott Murray

Abnormal Pathology to Nausea

14. What investigations are suggested when there are no other findings or abnormal pathology to nausea?

Question submitted by:
Dr. I. D'Souza
Willowdale, Ontario

The main causes of nausea and vomiting include toxicity, side-effects to medication, infectious causes, GI disorders, central nervous system disorders, psychiatric conditions, or iatrogenic causes. With respect to evaluating nausea and vomiting, first recognize and correct symptoms, such as dehydration or electrolyte abnormalities, try to identify the underlying cause and provide specific therapy if the cause is identified or use empiric therapy if no cause can be identified.

A thorough history and physical examination can usually identify the cause. The clinician must evaluate for warning signs of a serious cause of nausea and vomiting such as chest pain, severe abdominal pain, central nervous system symptoms and fever. A history of immunosuppression, hypotension, severe dehydration, or older age should also prompt urgent evaluation.

Diagnostic tests should be ordered only when based on clinical suspicion and there are no tests specific to determining the etiology of these symptoms. Tests should be directed based on the history and clinical examination. Routine blood work including Complete Blood Count (CBC), electrolytes, renal function and liver chemistry should be considered. A pregnancy test should also be performed in any woman of childbearing age. More invasive testing such as esophagogastroduodenoscopy, upper GI barium studies, CT scan can be ordered if the patients symptoms suggest a GI cause. Imaging of the brain (CT or MRI) should be considered in patients with neurological symptoms. If no diagnosis is determined after initial evaluation, gastric motility/emptying study may be considered to evaluate for gastroparesis.

Answered by:
Dr. Jerry McGrath

Selective Estrogen Receptor Modulators

15. What are the advantages and disadvantages of selective estrogen receptor modulators (SERMs) and bisphosphonates?

Question submitted by:
Dr. Charles Lynde
Markham, Ontario

In the prevention and treatment of osteoporosis, it is imperative that the clinician advise the patient of the importance of exercise, diet and quitting smoking. Once pharmacologic therapy is indicated, the treatment must be tailored to individual patients.

Bisphosphonates and SERMs are both considered as first-line agents in the treatment of osteoporosis. Raloxifene may be less potent than the bisphosphonates, but there is no direct fracture data comparison. Raloxifene appears to lower the risk of breast cancer, does not stimulate endometrial hyperplasia or vaginal bleeding. It has been shown to lower LDL-C, but does not appear to diminish coronary artery disease. It is associated with an increase in the incidence of thromboembolic disease (RR 3.1 compared with placebo), hot flashes, influenza-like symptoms, peripheral edema and leg cramps.

For the time being, I use bisphosphonates as first-line agents. SERMs should be reserved for those post-menopausal women with osteoporosis who are intolerant to bisphosphonates or who have an elevated risk of invasive breast cancer.

Answered by:
Dr. Elizabeth Hazel

Lipid Lowering Therapy

16. A diabetic patient with hepatic cirrhosis has an LDL-C level of > 4.0 mmol/l. What to choose for lipid lowering therapy?

Question submitted by:
Dr. Valeri Guilbeault
Gatineau, Quebec

A number of commonly used lipid lowering agents such as statins, fibrates and vitamin B are potentially hepatotoxic and their use is not generally recommended when there is significant elevation of liver enzymes, or in the presence of significant liver dysfunction. In the scenario presented, I would consider the use of ezetimibe which would potentially reduce the LDL-C by 15% to 20% in monotherapy. I would also consider adding a bile acid sequestrant such as cholestyramine 4 g b.i.d. cholestyramine would lead to perhaps a reduction in LDL-C of another 15% to 20%. If the LDL-C remains above target with these agents, I would have a discussion with the hepatologist and discuss the possibility of using a low dose of a statin, two to three days per week to begin with, with close monitoring of liver enzymes. In general, statins are quite safe and the risk of significant hepatotoxicity occurring from them is extremely low.

Answered by:
Dr. Hasnain Khandwala

Age Limit for the HPV Vaccine

17. What is the unconventional cut off age for the HPV vaccine?

Question submitted by:
Dr. Oluwasayo Olatunde
Moncton, New Brunswick

There is always some difficulty in predicting the efficacy and safety of vaccines when they are used according to unconventional schedules. Nevertheless, the safety of HPV vaccines has been quite remarkable both in trials and clinical use to date. Therefore, there has been a fair amount of "unconventional" use. The original large clinical trials included only women approximately 15-to 26-years-of-age. Nevertheless, vaccination was recommended for girls as young as nine-years-old, based largely on immunogenicity studies. Similarly, immunogenicity appears high in studies of women up to 55-years-old. The vaccine is not effective in clearing pre-existing HPV infection, or in preventing neoplastic changes due to these infections. This theoretically reduces the usefulness of vaccination in older age groups, particularly those who have been sexually active and have a significant risk of prior infection with one or more serotypes. It has been proposed that DNA testing for existing infection could be done in older women to assess the possible value of vaccination, but there are no clinical data to support such a strategy.

Answered by:

Dr. Michael Libman

Peripheral Cyanosis in a Newborn

18. How do you manage a newborn with peripheral cyanosis who is otherwise healthy?

Question submitted by:
Dr. Salwa Saadaldeen
London, Ontario

The otherwise well newborn who has peripheral cyanosis is best managed by a careful history and physical, warming and observation. Peripheral cyanosis—bluish discolouration of the hands and feet—is very common in newborns and unless accompanied by central cyanosis involving the lips and mucous membranes, it is almost always a normal variant. A combination of cool limbs and high hemoglobin concentrations in the blood make newborns especially prone to peripheral cyanosis, with none of the ominous connotations that are associated with central cyanosis or cyanosis in the adult. A term infant with peripheral cyanosis who has a normal physical examination and who is otherwise doing well should be warmed gently and observed carefully. In the vast majority of cases, with a few hours of observation and supportive care, peripheral cyanosis will resolve.

Answered by:

Dr. Michael Rieder

Paps Post Hysterectomy

19. How long do we continue on with vaginal wall Paps post hysterectomy for cervical cancer?

Question submitted by:
Dr. Sean Young
Agassiz, British Columbia

Following a sub-total hysterectomy where the cervix is left behind, pap smears should continue as per screening guidelines. Where a total hysterectomy has been performed for benign disease, such as fibroids or menorrhagia and a woman's prior pap smears have never shown evidence of dysplasia (precancerous cells), pap smears can be discontinued. If the patient has a new sexual partner however, she may be exposed to a new strain of HPV and in this case, she could be at risk for vaginal dysplasia. For patients who have had dysplasia in the past, pap smears should still continue as the vaginal vault is at risk for dysplasia.

Answered by:

Dr. Cathy Popadiuk

Symptoms Triggered from Monosodium Glutamate

20. How does Monosodium glutamate (MSG) act in Chinese food? Some have no symptoms and some people get very sick.

Question submitted by:
Dr. I. D'Souza
Willowdale, Ontario

MSG is a naturally occurring component found in food protein. It is often added to foods to further enhance their flavour. Its use is particularly widespread in Asian foods and restaurants. The adverse reactions attributed to MSG are often referred to as a "Chinese restaurant syndrome." In contrast to IgE-mediated reactions, the symptoms triggered by MSG in sensitive individuals often appear one to 14 hours after ingestion. The constellation of symptoms resulting from MSG sensitivity may include a feeling of heaviness or tightness in the chest, palpitations, nausea, diaphoresis, flushing and tingling. Some individuals also complain of myalgias and pain in the back or neck. In children, the symptoms differ somewhat, with a symptom complex consisting of irritability, screaming, delirium, chills and shivering. Although the symptoms are somewhat stereotypic, they are difficult to reproduce in a controlled setting. Additional symptoms have been described in case reports, including acute self-limited urticaria, angioedema, exacerbations of asthma and vasomotor rhinitis. Glutamic acid is a major excitatory neurotransmitter and reactions to this food additive are thought to be due to heightened sensitivity to this compound.

Answered by:

Dr. Peter Vadas

Types of Psychotherapy for Anxiety Disorders

21.

Which types of psychotherapy are effective for the different anxiety disorders (empirically validated)?

Question submitted by:
Dr. Diane Morissetti
Hawkesbury, Ontario

Prescription medications (*e.g.* SSRI agents, Benzodiazepines) are by far the most commonly employed methods to treat anxiety disorders. However, they provide a form of superficial resolution as they do not address the root cause of the anxiety. In root cause analysis, drilling down to the answer using a series of questions helps shed light to the cause. In this line, psychotherapeutic options include behavioral, cognitive, rational emotive behaviour and rational behaviour therapy. The first two are often combined together and delivered as cognitive behavioural therapy (CBT), which are used to treat all forms of anxiety disorders including:

- Obsessive compulsive disorder
- Generalized anxiety disorder
- Social anxiety disorder
- Panic disorder
- Post-traumatic stress disorder
- Specific phobias

Answered by:

Prof. Joel Lamoure

Follow-Up for Monoclonal Gammopathy

22.

What is the follow-up of a monoclonal gammopathy of undetermined significance (MGUS)?

Question submitted by:
Dr. Charles Lynde
Markham, Ontario

The diagnosis of MGUS is usually one of exclusion and therefore is made after a reasonable search for multiple myeloma and lymphoproliferative disease (particularly for IgM MGUS) has been made. As long as the patient is well and remains asymptomatic, the immunoglobulins should be checked annually. If there is no rise, one can safely conclude that the diagnosis remains MGUS. Rising monoclonal protein levels or the appearance of symptoms that might be explained by malignancy should lead to another search for the above diagnoses.

Answered by:

Dr. Kang Howson-Jan and Dr. Cyrus Hsia

Otitis Externa

23. In severe otitis externa, with marked narrowing of the canal, please discuss the use of a "wick" and how to use in general practice.

Question submitted by:
Dr. Laura McConnell
Mississauga, Ontario

When external otitis is very mild, simply refraining from swimming or washing hair for a few days usually results in a cure. However, if the infection is moderate to severe, spontaneous improvement may not occur. Topical solutions or suspensions in the form of ear drops are the most common forms of treatment. Some contain antibiotics, either antibacterial or antifungal. Some prescription drops also contain steroids, which help to resolve swelling and itching. Although there is evidence that steroids are effective at reducing the length of treatment time required, fungal otitis externa may worsen by prolonged use of steroid-containing drops.

Removal of debris (wax, dry epithelium and pus) from the ear canal promotes direct contact of the prescribed medication with the infected skin. This is best accomplished using a binocular microscope. When canal swelling has progressed to the point where the ear canal is blocked, topical drops may not penetrate far enough into the ear canal to be effective. The physician may need to carefully insert a wick of cotton or other commercially available, pre-fashioned, absorbent material called an ear wick and then saturate that with the medication. The wick is kept for three to four days and the ear should be left open.

Answered by:
Dr. Ted Tewfik

Silent Abscesses

24. In persons > 65-years-of-age, what is the most common site of so-called "silent abscess" of significant increased white blood cell count and no urinary tract infection?

Question submitted by:
Dr. W. Sullivan
Halifax, Nova Scotia

These days in many regions, unexplained elevated white blood cell count in a hospitalized patient should always prompt an evaluation for *Clostridium difficile* disease. Truly "silent" abscesses have become rare in the era of rapid high resolution imaging. Nevertheless, an unexplained neutrophilia with intermittent fevers may be due to an occult abscess. These are most often abdominal and most often related to cholecystic or diverticular disease. Liver abscesses do not always show elevated liver function tests. Less commonly, sinusitis can present silently, particularly in the sphenoids. There are many non-infectious causes of neutrophilia, including cancers, steroid medications, inflammatory disorders (especially pancreatitis, vasculitis and gout) and pain itself.

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Answered by:
Dr. Michael Libman