Consultant's Corner

Practical Answers To Your Everyday Questions

1. The Threat of Severe Acute Respiratory Syndrome

What ever happened to SARS? Is it still a threat?

Question submitted by:
Dr. Len Grisac
Etobicoke, Ontario

Although much work has been done to understand the severe acute respiratory syndrome (SARS) epidemic, there are still several fundamental questions which remain unanswered. The virus appears to be a mutant form derived from an animal *Coronavirus*, which acquired the potential to cause serious disease in humans. Despite several dramatic episodes of single individuals infecting many contacts, including family members, healthcare workers and others whose contact with the source patient was remarkably indirect, the overall level of contagiousness was not very high. This allowed the outbreak to be controlled even in regions with a limited healthcare and infection control infrastructure. There have been no detected cases in humans in recent years. Nevertheless, it remains theoretically possible for the same virus, or perhaps a similar one, to re-emerge in animals and again be transmitted to humans. The likelihood of such an event remains a matter of debate.

Answered by:
Dr. Michael Libman

2. Counselling for Osteonecrosis

In regards to osteonecrosis, how should we counsel our patients regarding symptoms, incidence, *etc.*?

Question submitted by:
Dr. Susan Malloy
Halifax, Nova Scotia

Osteonecrosis most commonly occurs in the head of the femur, but can also affect the bones around the knee joint, humerus and small bones of hands and feet. Disruption of blood supply to bone is the pathogenic mechanism leading to death of bone and bone marrow and subsequent collapse of bone. This may occur following trauma or a fracture, or be due to vascular compromise from tissue edema or vascular thrombosis. Causes other than trauma include corticosteroid use, usually in high doses, excessive alcohol intake, or related to a chronic disease, such as systemic lupus erythematosis, sickle cell or decompression disease. Pain, initially on weight-bearing for lower limbs, or use for other areas, is usually the first and most prominent symptom of osteonecrosis. Important pain may also occur at rest. Limitation of mobility due to structural collapse of bony contour is a late occurrence. Patients being treated with high-dose corticosteroids should be counselled to report any new onset of severe pain in a joint area. Decompression or non-weight-bearing techniques recommended at an early stage may prevent structural damage and loss of joint function.

Answered by:
Dr. Mary-Ann Fitzcharles

Indications for Mitral Valve Surgery

3. What are the indications for mitral valve surgery in mitral valve prolapse?

Question submitted by:
Dr. T. R. Carscadden
Lively, Ontario

Recommendations for surgery in patients with mitral valve prolapse (MVP) and mitral regurgitation (MR) are the same for other forms of non-ischemic MR:

- Symptomatic patients with normal left ventricular (LV) function or LV dysfunction:
  Surgery is recommended for patients with heart failure symptoms (*i.e.*, dyspnea, orthopnea, paroxysmal nocturnal dyspnea, leg edema, *etc.*). Among patients with very mild symptoms, surgery is recommended, particularly when the valve has a > 90% chance of being repaired (Class I-B)
- Asymptomatic patients with LV dysfunction:
  The timing of surgery for asymptomatic patients is controversial, but there is an agreement that MV surgery is indicated when LV dysfunction is present (LV ejection fraction 30% to 60% and/or LV end-systolic dimension ≥ 40 mm)
  (Class I-B)
- Asymptomatic patients with normal LV function:
  MV repair is reasonable in experienced surgical centers for asymptomatic patients with chronic, severe MR and preserved LV function (Class IIa-B). MV surgery should also be considered for this group of patients with new onset of atrial fibrillation (Class IIa-) or pulmonary hypertension (pulmonary artery systolic pressure > 50 mmHg at rest or > 60 mmHg with exercise)
  (Class IIa-C)

Resource
1. Bonow RO, Carabello B, de Leon Jr AC, et al: ACC/AHA 2006 Practice Guidelines for the Management of Patients with Valvular Heart Disease: Executive Summary. JACC 2006; 48(3):598-675.

Answered by:

Dr. Chi-Ming Chow

Testosterone Therapy

4. How long does it take before testosterone replacement therapy does or does not show benefit?

Question submitted by:
Dr. Edward Karpinski
Saskatoon, Saskatchewan

If testosterone therapy is initiated to treat symptomatic hypogonadism, the onset of effect is rather dramatic and is seen within a few weeks. If the patient does not have symptoms of hypogonadism but is on testosterone replacement due to asymptomatic biochemical hypogonadism, then (currently) there are no specific guidelines to help determine when to discontinue testosterone and it may need to be administered indefinitely.

Even though patients may not notice any subjective difference in symptoms, testosterone supplementation has been shown to have positive effects on bone mass, muscle mass, cardiac contractility, insulin resistance, *etc.*

Answered by:

Dr. Hasnain Khandwala

5. Vitamin D Deficiency and Fibromyalgia

What, if any, is the association of vitamin D deficiency and fibromyalgia?

Question submitted by:
Dr. Adele Belliveau
Dartmouth, Nova Scotia

Non-specific musculoskeletal pain is a common symptom of vitamin D deficiency. There is also mounting evidence that a lack of vitamin D is associated with a reduction in muscle strength, which can be recognized clinically as a "waddling gait," rather than profound muscle weakness. Deficiency of this vitamin is an increasing problem worldwide with prevalence rates of up to 50% recorded in North American and European populations. In this context, there have not been convincing studies implicating vitamin D deficiency in the pathogenesis of fibromyalgia. Any myalgia can masquerade as widespread body pain and may be misdiagnosed as fibromyalgia. The physician should exclude readily treatable conditions causing myalgia, such as vitamin D deficiency or statin induced myopathy. Although the symptom presentation of body pain in fibromyalgia and vitamin D deficiency may be similar, the pathogenesis of pain is likely different.

Answered by:

Dr. Mary-Ann Fitzcharles

Quarantining a Pregnant Woman from Chickenpox

6.

Do we quarantine a mother in her first trimester from her own one-year-old child with chickenpox?

Question submitted by:
Dr. Kishore Simgat
Burlington, Ontario

Most adults are immune to chickenpox, either through natural infection, or more recently, secondary to vaccination. There is no known risk to the fetus from exposure of an immune mother to chickenpox. In general, a history of chickenpox is sufficient to assume immunity. Vaccination should be properly documented. Immunity due to natural disease can be confirmed by demonstrating the presence of IgG on serologic testing. Unfortunately, the commonly used tests will not detect immunity secondary to vaccination. Chickenpox in a non-immune pregnant woman can have severe sequelae. Disease appears to be more severe than in the non-pregnant woman, with more frequent life-threatening complications. Spontaneous abortion is possible and fetal malformations are described. Finally, maternal chickenpox in the peripartum period can lead to catastrophic disease in the neonate. Quarantine of the mother from any case of chickenpox is reasonable, but unfortunately, a child with chickenpox may be contagious one to two days before the typical rash appears and a diagnosis can be made. Women of child-bearing age without immunity might consider vaccination pre-conception.

Answered by:

Dr. Michael Libman

Indications for Tonsillectomy and Adenoidectomy

7.

When should tonsils and adenoids be removed?

Question submitted by:
Anonymous

Although this has been one of the most commonly performed surgical procedures, tonsillectomy and adenoidectomy is only indicated for a few conditions and historically only about 2% of children who had their tonsils removed had a valid indication for the procedure. Given that this is not a risk-free procedure (death rate is one per 250,000 procedures, not large but not zero) and that complications can occur (up to one in 20 children have a postoperative bleed between days four and eight after surgery), the procedure should only be done when the benefit is clear and exceeds the risks.

The indications for this procedure include suspected tumour, recurrent abcess, persistent problems with swallowing (after a thorough medical workup), heart failure (due to large tonsils and adenoids—not very common), sleep apnea and abnormal speech (again, after a thorough workup). There are some surgeons who feel that severe persistent mouth breathing due to large adenoids is an indication for the procedure, notably if this is leading to changes in facial bone structure such as overbite.

Answered by:

Dr. Michael Rieder

8. Amelanotic Melanoma

My patient had an amelanotic malignant melanoma which I would probably have deemed benign and observed, had it not been on her eyelid and obstructing vision. Is this an unusual presentation?

Question submitted by:
Dr. Gordon Milne
Thunder Bay, Ontario

This is one of those chronically recurring nightmares that keeps us all on our toes. You should look at a lesion and be able to make a diagnosis, such as seborrheic keratosis, intradermal nevus, *etc.* If it is just not clear what it is and you have the inclination to observe it in case it becomes clearly malignant, you are usually better off to do the biopsy and clear the indecision from the equation. That being said we have all been amazed by what we thought were typical pyogenic granulomas, or pale nevi that turned out to be amelanotic melanomas. The two lessons we learn are:

- If in doubt, biopsy
- You will miss some melanomas despite your best diagnostic skills—that's life

Answered by:

Dr. Scott Murray

The Definition of Metabolic Syndrome

9.

Which definition of the Metabolic syndrome is most appropriate for clinical practice?

Question submitted by:
Dr. Erica Weinberg
Thornhill, Ontario

An association between certain metabolic disorders and CVD has been known since the 1940s. In the 1980s, this association became more clearly defined.

The definition of the Metabolic syndrome varies depending on the group of experts. Based on the guidelines from the 2001 National Cholesterol Education Program Adult Treatment Panel, any three of the following traits in the same individual meet the criteria for the Metabolic syndrome:

- Abdominal obesity: a waist circumference > 102 cm (40 inches) in men and > 88 cm (35 inches) in women
- Serum triglycerides ≥ 1.7 mmol/L
- HDL-C ≤ 1.0 mmol/L in men and ≤ 1.3 mmol/L in women
- BP ≥ 130/85 mmHg
- Fasting blood glucose ≥ 6.2 mmol/L

Answered by:

Dr. Chi-Ming Chow

Treating Infant Eczema

10.

Other than topical steroids and frequent glaxal-based cream, what else can be used to treat infant eczema?

Question submitted by:
Dr. Si-Ann Woods
Ottawa, Ontario

The management of eczema in infants starts with the use of emollients to keep the skin hydrated and with the application of compounds, such as oils, after a bath, again to keep water in the skin. Topical steroids are commonly used, the most usual problem being under-dosing. I like to start with 1% hydrocortisone cream applied four times a day, decreasing frequency every week as symptoms improve. Oral antihistamines can be used to reduce itch with the caveat that they can be sedating and can become less effective over time. There are now immunomodulators available for eczema, which appear to be useful in the case of steroid-resistant eczema but which should only be used after consultation with a specialist in the case of children under two-years-of-age.

Answered by:

Dr. Michael Rieder

The Role of Metformin

11. What is the role of metformin in treating obesity? Is there any evidence?

Question submitted by:
Dr. Narendra Makan
Glovertown, Newfoundland

Metformin is the only agent available for the treatment of diabetes in Canada which does not cause weight gain and may cause weight loss. However, the amount of weight loss seen with metformin in most studies is < 5%; therefore, it does not necessarily qualify as a weight loss drug. Yet, as it is weight neutral or weight loss promoting, it is an excellent choice for the treatment of Type 2 diabetes. In one study, patients without diabetes but with glucose intolerance, treatment with metformin led to a 2.5% reduction in body weight after three years. In another study of patients with insulin resistance/Metabolic syndrome, metformin led to up to a 2 kg weight loss. However, in the same study, the diet and exercise group lost 7% body weight. In the A Diabetes Outcome Progression Trial (ADOPT), patients on glyburide and rosiglitazone gained a significant amount of weight whereas there was a mean weight loss of approximately 2 kg over five years in the metformin group. In patients with polycystic ovary syndrome who are obese, metformin has had variable results. In one study, it was associated with as much weight loss as was sibutramine and orlistat. Yet, another small study showed that treatment with metformin resulted in only a 1% weight loss. Thus, based on the available evidence, it is not recommended to routinely prescribe metformin for the treatment of obesity. However, if there are associated features of insulin resistance/glucose intolerance, if the patient has tried intensive lifestyle changes and if the other available anti-obesity drugs cannot be used, a trial of metformin is not unreasonable.

Answered by:

Dr. Hasnain Khandwala

Herpes Simplex Treatment

12. Patients with herpes simplex often ask for topical antivirals for recurrences. Do these help?

Question submitted by:
Dr. Kirsten Emmott
Comox, British Columbia

The benefit from topical therapies for herpes is marginal at best. While significant shortening of an outbreak can be achieved with systemic acyclovir, valacyclovir or famciclovir, the topical acyclovir provides a minimal effect—perhaps shortening an outbreak for a day on average. Therefore, if treatment is felt to be indicated, dermatologists tend to treat herpes outbreaks systemically. The newer topical penciclovir may be more effective but still pales next to systemics.

Answered by:

Dr. Scott Murray