Editor's Picks
"Best of 2010"

Drop of BP with Cessation of Smoking

1. With smoking cessation as a lifestyle intervention in hypertension, how much is the BP expected to drop?

Question submitted by:
Dr. J Mitchell

It is of interest to note that although smoking itself does not appear to cause persistent hypertension, it markedly increases the CV risk in hypertensive patients. A number of short-term (approximately one week) smoking cessation studies have shown reductions in AMBP, heart rate (HR) and sympathetic nerve activity among male habitual smokers with normal blood pressures (BPs). The decrease in nighttime BP was not prominent compared with that of daytime BP.

In a separate Taiwanese study, smoking cessation among hypertensive patients was shown to provide a reduction of mortality risk similar to a permanent reduction of 40 mmHg in BP, over and above the effect of any antihypertensive medications. Appreciating this relationship enables physicians to bridge the clinical disconnection and motivates hypertensive smokers to seek smoking cessation.

Answered by:
Dr. Chi-Ming Chow

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Headache Red Flags

2. What are some red flags in headaches? When should we investigate aggressively?

Question submitted by:
Dr. Mark D'Souza
London, Ontario

A number of ominous presenting clinical features in patients with headaches should alert the physician to the possibility of structural lesions as the underlying problem. Sudden onset "most severe headache ever," especially in patients with focal neurological symptoms, always requires further investigations. Such symptoms include progressive drowsiness, visual disturbances, weakness, ataxia or vertigo. On examination, neck stffness or difficulty arousing the partner are important physical signs that require urgent attention. Medical conditions that present with headaches and neck stiffness include subarachnoid hemorrhage and meningeal infections; as do space occupying lesions, including brain tumours and intracranial hemorrhage (epidural or subdural). Headache may also be a presenting feature of lesions involving the cervical vertebrae (fracture or dislocation), stroke (cortical venous thrombosis) and inflammatory disorders (temporal arteritis). The headache in such conditions tends to be progressive, more severe in the morning and is often associated with focal signs, although they may on occasion be very subtle. As a rule, any new headache, especially if progressive and associated, requires further investigations most commonly a cranial CT or MRI.

Answered by:
Dr. Ashfaq Shuaib

Potential Risks from Shaving or Waxing the Genital Area

3. Does shaving or waxing the genital area increase the risk of aquiring HPV?

Question submitted by:
Dr. Susanne Voetmann
Nanaimo, British Columbia

Shaving or waxing will both cause myriads of tiny breaks in the skin, making it theoretically easier to transmit viruses by direct contact. This has been well documented for viruses with high transmissibility, short incubation periods and easily detectable lesions, such as herpes simplex. Many people with herpes labialis have experienced the spread of their own lesions related to shaving or other skin trauma. Dentists used to acquire herpetic whitlow from their patients via small periungual injuries. I do not know of scientific literature demonstrating similar risks for the transmission of HPV, but it stands to reason that the principle would be the same.

Answered by:

Dr. Michael Libman

ATIVAN is useful for the short-term relief of manifestations of excessive anxiety in patients with anxiety neurosis. It is also useful as an adjunct for the relief of excessive anxiety that might be present prior to surgical interventions. Anxiety and tension associated with the stresses of everyday life usually do not require treatment with anxiolytic drugs.

ATIVAN is contraindicated in patients with myasthenia gravis or acute narrow angle glaucoma, and in those with known hypersensitivity to benzodiazepines.

Severe anaphylactic/anaphylactoid reactions have been reported with the use of benzodiazepines. Cases of angioedema involving the tongue, glottis or larynx have been reported in patients after taking the first or subsequent doses of benzodiazepines. Some patients taking benzodiazepines have had additional symptoms such as dyspnea, throat closing or nausea and vomiting. Some patients have required medical therapy in the emergency department. If angioedema involves the tongue, glottis or larynx, airway obstruction may occur and be fatal. Patients who develop angioedema after treatment with a benzodiazepine should not be rechallenged with the drug.

ATIVAN is not recommended for use in depressive neurosis or in psychotic reactions. Because of the lack of sufficient clinical experience, lorazepam is not recommended for use in patients less than 18 years of age. Since ATIVAN has a central nervous system depressant effect, patients should be advised against the simultaneous use of other CNS depressant drugs. Patients should also be cautioned not to take alcohol during the administration of lorazepam because of the potentiation of effects that may occur. ATIVAN should not be used during pregnancy. Since lorazepam is also a benzodiazepine derivative, its administration is rarely justified in women of childbearing potential. ATIVAN should not be administered to breast-feeding women, unless the expected benefit to the mother outweighs the potential risk to the infant.

Use of benzodiazepines, including lorazepam, may lead to potentially fatal respiratory depression.

Excessive sedation has been observed with lorazepam at standard therapeutic doses.

The most frequently reported adverse reaction to ATIVAN was drowsiness. See prescribing information for complete adverse reaction information.

The lowest effective dose of ATIVAN should be prescribed for the shortest duration possible. The risk of withdrawal and rebound phenomena is greater after abrupt discontinuation; therefore, the drug should be discontinued gradually. Withdrawal symptoms (e.g., rebound insomnia) can appear following cessation of recommended doses after as little as one week of therapy. Abrupt discontinuation of lorazepam should be avoided and a gradual, dose-tapering schedule followed after extended therapy.

ATIVAN should not be administered to individuals prone to drug abuse. Lorazepam may have abuse potential, especially in patients with a history of drug and/or alcohol abuse.

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Pediatric Murmurs

4.

Should every pediatric murmur (found on routine exam) be investigated? What is the best enlargement—cardiac ECHO or referral?

Question submitted by:
Dr. Jennifer Kask
Campbell River, British Columbia

Every cardiac murmur heard in a child should be investigated, but the first step is a careful history and physical. The child's general health and activity should be determined, as well as any symptoms suggestive of cardiac disease. The examination should include assessment of cardiac rhythm and rate, as well as BP. Examination should be conducted with the child both upright and recumbent. Up to one-third of children have an innocent murmur at some time during childhood. Characteristics of innocent murmurs include the fact that they are systolic, change in character or intensity with change in position, and vibratory or musical quality. In the case of a vibratory systolic murmur that changes with posture and an otherwise normal examination, reassurance and follow-up are all that are required. If any testing is needed, an EKG and chest radiograph should be sufficient. It is important that parents of children with innocent murmurs understand that limitation of the child's activity is not only unnecessary, but may be harmful. The presence of a pansystolic or diastolic murmur should always prompt further evaluation and referral to a pediatric cardiologist, as should the presence of a murmur associated with cardiac symptoms such as failure to thrive or shortness of breath with usual activities of childhood.

Answered by:
Dr. Michael Rieder

Hormone Replacement Therapy

5.

Do you recommend hormone replacement therapy (HRT) for a few years even if a menopausal woman has no symptoms?

Question submitted by:
Dr. Guy Frenette
Cap-Sante, Quebec

In the past, HRT was advocated in virtually all menopausal women to help with the distressing symptoms of menopause, bone health, cardiovascular disease (CVD) risk, and cognitive health. With the findings in large scale clinical trials of increased risk for CVD and breast cancer, HRT is now discouraged. The only role for HRT is in the severely symptomatic woman with debilitating symptoms of hot flashes, night sweats, sleeplessness and vaginal atrophy, where nothing else has worked and where she has no contraindications. HRT is prescribed in the lowest dose to relieve symptoms, with a progesterone agent if the woman has her uterus.

Women are encouraged to titrate off the HRT as soon as possible. Other medications and alternatives are available for bone and CV health.

Answered by:
Dr. Cathy Popadiuk

Editor's Picks
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Quick "Lift" Medication for Depression

6. Why is there no medication that a severely depressed patient can take to "lift" their mood very quickly?

Question submitted by:
Dr. J. P. Swart
Hanglide, BC

Many commonly used antidepressants work by means of blocking the membrane transporters for various neurotransmitters (*e.g.*, serotonin, norepinephrine, *etc.*), resulting in the elevation of the extracellular concentration of such neurotransmitters at the synaptic cleft of central monoamine synapses. This, in turn, enhances neurotransmission within the brain.

Initial theories proposed that there are downstream neuroadaptive changes resulting in an antidepressive effect (*e.g.*, downregulation of subsets of postsynaptic serotonin and norepinephrine receptors; desensitization of autoreceptors located on serotonin and norepinephrine cell bodies).

Alternatively, some have proposed that antidepressants induce the activation of second messengers, resulting in changes in gene expression. This, in turn, would lead to increased production of neurotropic factors and thus, result in synaptic plasticity and neurogenesis.

As well, there is a large bio-psycho-social factor that comes into play here. That means that although we can create activation in the patients, especially using serotonergic agents, there are still home and work issues. The expression reads, "If nothing changes, then nothing changes." Only after activation has allowed to be addressed, the psycho-social component, can there be improvement.

In conclusion, there is still believed to be a delay between the immediate changes in the cleft occurring immediately after taking the medication, and the resultant clinical effect of mood elevation. There have been several hypotheses put forth to explain this delay, but additional studies are required to fully elucidate the reason for the lag time of clinical effect.

Answered by:
Professor Joel Lamoure

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Diabetic Control for a Type 2 Diabetic on Metformin

7. What are the best choices for a Type 2 diabetic on metformin who needs better diabetic control?

Question submitted by:
Dr. E. Gibbings
Regina, Saskatchewan

As per the 2008 Canadian Diabetes Association guidelines, the choice of a second-line agent after metformin failure should take into consideration the advantages as well as the side-effect profile of the agents in question. Sulfonylureas have the advantage of providing rapid reduction in blood glucose level and long-term safety data. However, hypoglycemia, weight gain, *etc.* are the limiting factors. Thiazolidinediones have the advantage of perhaps providing more durable glycemic control and improving insulin sensitivity, however, they are associated with weight gain, increased incidence of heart failure and fractures. Dipeptidyl peptidase-4 (DPP-4) inhibitors such as sitagliptin are generally well-tolerated and do not cause weight gain or hypoglycemia, but they are relatively new and thus lack long-term safety data. α-glucose inhibitors such as acarbose are generally free of systemic side-effects, but cause a modest reduction in HbA1c and are associated with significant adverse GI affects. Insulin is effective and safe, however, potential limitations include the risk of hypoglycemia, weight gain and the mode of administration. Unfortunately, no good randomized control trial exists that can provide an evidence-based answer to the question, and therefore the choice of the second agent will need to be individualized after reviewing the benefits and risks that each class of hypoglycemic agents offers.

Answered by:
Dr. Hasnain Khandwala

Removal of Tattoos

8. How difficult is it to remove tattoos and what are the chances of scarring?

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

Removing tattoos is far more difficult than having them put on. Lasers (usually Nd: Yag, ruby, alexandrite, *etc.*) act by breaking up the pigment so it can be removed by the patient's lymphatics. The response depends on the susceptibility of the particular ink to the wavelength used, and usually requires multiple treatments. In many cases, total removal of the ink may not be possible. These selective lasers do have the advantage of minimizing scarring compared to other therapies such as CO_2, argon lasers, surgery or dermabrasion. These latter treatments almost always result in some scarring.

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Answered by:
Dr. Scott Murray