



Increased Risk of Breast Cancer with Topical Estrogen Therapy

1.

Does topical estrogen therapy increase risk of breast cancer in a menopausal woman with an intact uterus?

Question submitted by:

Dr. Renu Bajaj
Waterloo, Ontario

Topical estrogen therapy in Canada is available in the form of a transdermal patch and a transdermal gel. Topical estrogen provides systemic levels of estrogen and can be used to treat systemic symptoms of menopause such as vasomotor symptoms. The Women's Health Initiative (WHI) found an increased risk of invasive breast cancer in women in the combined estrogen-progestin arm. This effect was not found in the estrogen only arm; in this study, estrogen was

administered orally. Although there does not appear to be an increased risk of breast cancer with the use of unopposed estrogen alone based on the WHI study, women with an intact uterus should be given estrogen and progestin in combination for endometrial protection.

Answered by:

Dr. Kimberly Liu

Treating the Depressed Adolescent

2.

How best can we help and treat the depressed adolescent?

Question submitted by:

Dr. Marie-Josée Caron
Montreal, Quebec

The depressed adolescent presents a very unique, challenging and often complex case. A practitioner must ascertain whether the depression is a disorder or the disease itself. This matters when we deal with pharmacotherapy as adequate therapy may be missed if the depression is but a symptom. This is complicated by the fact of the "black-box" warnings and suicidality risk secondary to serotonin-mediating agents. This may be explained by activation with selective serotonin reuptake inhibitors, serotonin-norepinephrine reuptake inhibitors, etc. Awareness of the root cause such as pathophysiological changes and hormonal changes, school

and family relationships must all be considered. Family counselling, therapy and cognitive behavioural therapy all may be required in addition to or instead of pharmacological options. The essential point though is to ensure recovery, not just remission of the depressive episode and any concurrent Axis 2 issues as the hippocampal size decreases with each subsequent depressive episode, making each subsequent depressive episode more challenging to treat.

Answered by:

Prof. Joel Lamoure



Food Allergy Testing in Children with Mild Urticaria

3.

In children with mild urticaria, would they benefit from food allergy testing?

Question submitted by:
Dr. Laith Barsoom
North York, Ontario

Acute self-limited urticaria is common in children. The most common causes include reactions to foods, medications, insect stings and viral illnesses. Typically, the urticarial lesions are red, raised and itchy bumps resembling mosquito bites. These are often present in a generalized distribution, sometimes accompanied by angioedema, upper or lower airway, GI or CV involvement.

When an urticarial eruption is due to an allergic reaction to foods, the urticaria will appear almost invariably within two to three hours of ingestion of the food allergen. Allergic reactions to foods typically last hours, sometimes a day or two. The severity of the allergic reaction may vary according to the "dose" of exposure to the

food allergen, but other factors may play a role as well, such as the presence of asthma, especially when not optimally controlled.

The nine foods responsible for most allergic reactions in the North American population are milk, egg, wheat, soy, fish, shellfish, peanut, tree nuts and sesame. However, > 100 foods have been reported to cause allergic reactions.

Where the clinical history is suggestive of an allergic reaction to foods, appropriate skin testing is indicated.

Answered by:
Dr. Peter Vadas

Treating Deep Vein Thrombosis with NSAIDs

4.

Clinical practice guidelines suggest deep vein thrombosis (DVT) below the knee be treated with NSAIDs and not anticoagulation. What management would you suggest when there is a past history of pulmonary embolism (PE)?

Question submitted by:
Anonymous

I would obtain further history concerning the PE as to how recently it occurred, whether there was a likely cause and how it was diagnosed. If the history of PE is remote and had a well-documented cause (e.g., a DVT from prolonged lower limb immobilization), then NSAID therapy is adequate. However, this too should take into account whether there is any clinical suspicion of other causes, such as occult malignancy, which can present with superficial thrombophlebitis.

If there is anything in the clinical scenario that causes concern that the thrombosis may be extending, a repeat non-invasive imaging study a week following the initial study is worth considering.

Answered by:
**Dr. Kamilia Rizkalla and
Dr. Kang Howson-Jan**

How to Delay Bone Mass Loss

5.

In a patient with ongoing prednisone use, what is the best therapy to delay bone mass loss?

Question submitted by:
Dr. Craig Render
Kelowna, British Columbia

Prednisone and other glucocorticoid therapies increase the risk of osteoporosis. The accelerated bone loss is most pronounced in the first few months of use. In addition, there is an increased fracture risk and fractures occur at higher BMD values than occur in post-menopausal osteoporosis. Thus, prevention strategies to avoid bone loss are paramount when a patient is to be treated with glucocorticoids. In addition, the lowest dose and shortest possible duration of steroid therapy should be prescribed. Even replacement doses can cause bone loss.

All patients should be encouraged to do weight-bearing exercises for at least 30 minutes each day for both bone protection and prevention of glucocorticoid-induced muscle atrophy. Patients should avoid smoking and excess alcohol

and take measures to prevent falls. They should be prescribed adequate calcium (1000 mg q.d. to 1500 mg q.d.) and vitamin D (1000 IU q.d.). These measures are often insufficient to protect patients from glucocorticoid-induced osteoporosis. In patients with no contraindications, the additional use of a bisphosphonate (regardless of the BMD) should be considered. There is substantial data demonstrating the efficacy of bisphosphonates in decreasing fracture risk and improving BMD. However, they should be used with caution in premenopausal women who may desire pregnancy in the future.

Answered by:
Dr. Elizabeth Hazel

Migraine Associated with the OC Pill

6.

Should complicated migraine be a contraindication to the OC pill?

Question submitted by:
Dr. Greg Baran
Kingston, Ontario

Yes. Classic migraine headaches associated with "aura" such as visual disturbances, unilateral weakness or numbness and dizziness and sensitivity to light or sound are a contraindication to the OC pill. The relative risk for an ischemic stroke is three to six times compared to non-migraine sufferers. The complicated migraine is a subset of classic migraine. The

common migraine headache, typically bilateral and lacking aura, is not a contraindication to the OC pill in the absence of other risk factors such as hypertension, smoking, thromboembolic disease and so on.

Answered by:
Dr. Cathy Popadiuk



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Neurodermatitis

7. What is the best treatment for neurodermatitis apart from the obvious stress reduction?

Question submitted by:
Dr. Roshan Dheda
Bradford, Ontario

The first step in addressing neurodermatitis is ensuring that there is no primary skin disease (contact dermatitis, dermatitis herpetiformis, etc.) or cause for generalized pruritus (polycythemia, liver or renal disease, etc.) that can be identified and treated. The best treatment is patient education, counselling regarding avoidance of skin trauma and the factors that flare this such as stress or habitual picking. Topical soothing agents such as menthol and phenol can be helpful as well as topical steroids. Intralesional steroids can help in areas of thickened

itchy skin. An approach for persistently scratched and irritated areas of skin is occlusion. Wrapping an area such as an arm or leg in a zinc impregnated dressing and wrapping for a week at a time is very effective in stopping scratching and breaking the cycle of skin injury and irritation. In difficult cases where an obsessive tendency is identified, oral agents for obsessive-compulsive disorder can be helpful.

Answered by:
Dr. Scott Murray

Does Cholecystectomy Affect Cholesterol Levels?

8. Does a cholecystectomy affect cholesterol levels? If so, how higher or lower?

Question submitted by:
Dr. Karen Bailey
Calgary, Alberta

This is an interesting question, however, not many studies have been done in this area. In 1964, Kronl, *et al*¹ carried out a study in humans to evaluate this. Their study involved investigating lipemia in a group of patients after cholecystectomy vs. controls. The patients ingested cream as well as the intraduodenal application of olive oil. The investigators found no significant differences in alimentary lipemia between the two groups. No difference in fecal elimination of fat between patients

after cholecystectomy and controls was found. They concluded that cholecystectomy does not influence the absorption of butter fat and olive oil.

Reference

1. Kronl A, Vavrinkova H, Michalec C: Effect Of Cholecystectomy On The Role Of The Gall Bladder In Fat Absorption. *Gut* 1964; 5:607-10.

Answered by:
Dr. Jerry McGrath

9.

Indications for Tonsillectomy

What are the indications for tonsillectomy in adults?

Question submitted by:
Dr. Servaas Verster
Lestock, Saskatchewan

Infections requiring tonsillectomy are often a result of *Streptococcus* ("strep throat"), but some may be due to other bacteria, such as *Staphylococcus*, or viruses.

Most tonsillectomies are performed on children, although many are also performed on teenagers and adults.

The most frequent indications of tonsillectomy in adults are:

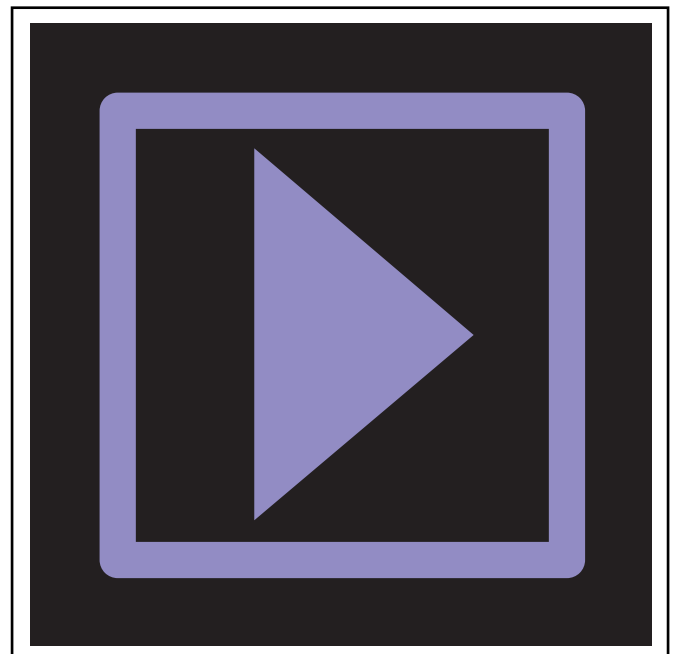
- 1) Frequent bouts of acute tonsillitis. The number requiring tonsillectomy varies with the severity of the episodes. One case, even severe, is generally not enough for most surgeons to decide that tonsillectomy is necessary
- 2) Chronic tonsillitis, consisting of persistent, moderate-to-severe throat pain
- 3) Multiple bouts of peritonsillar abscess. In the past, one episode of peritonsillar

abscess was an indication for tonsillectomy. However, because a small percentage of patients may get recurrent abscesses, one episode is not an indication of tonsillectomy

- 4) Sleep apnea (stopping or obstructing breathing at night due to enlarged tonsils or adenoids)
- 5) Difficulty eating or swallowing due to enlarged tonsils (very unusual reason for tonsillectomy)
- 6) Production of tonsilloliths in the tonsils
- 7) Abnormally large tonsils with crypts (craters or impacts in the tonsils)
- 8) Unusual enlargement of one tonsil (asymmetrical) to rule out neoplasia (lymphoma, carcinoma, etc.)

Answered by:

Dr. Ted Tewfik





When to Treat Elevated Triglycerides

10.

When do we treat elevated triglycerides (TGs)?

Question submitted by:

Dr. Mario B. Boutin
Laval, Quebec

It remains controversial whether there is an independent association between TGs and ischemic heart disease (IHD). The Working Group on Hypercholesterolemia does not recommend a discrete target TG level.¹ An optimal plasma TG level should be < 1.5 mmol/L. The current recommendation is to first implement and maintain lifestyle changes, such as diet therapy, weight loss, restriction of refined carbohydrate and alcohol and increase intake of omega-3 fatty acids. Severe hypertriglyceridemia (> 10.0 mmol/L) despite lifestyle changes should be treated since it

is a risk factor for pancreatitis. Preferred drug treatment is a fibrate, niacin and salmon oil supplementation.

Reference

1. McPherson R, Frohlich J, Fodor G, et al: Canadian Cardiovascular Society Position Statement--Recommendations For The Diagnosis And Treatment Of Dyslipidemia And Prevention Of Cardiovascular Disease. *Can J Cardiol* 2006; 22(11):913-27.

Answered by:

Dr. Chi-Ming Chow

Referral for Circumcision

11.

How long would you wait with a child who has a non-retracting foreskin before referral for circumcision?

Question submitted by:

Dr. Elizabeth Zubek
Maple Ridge, British Columbia

This is an important question as there are many misconceptions as to the foreskin, notably as currently most Canadian male infants are not circumcised as compared to 20 years ago when most infants were. The foreskin of the newborn is attached to the glans and thus would not be expected to be retractile. Thus, the foreskin should never be forcefully retracted as this can be painful and can also cause adhesions to develop. When the foreskin becomes non-adherent, it is readily retracted and this should be done as part of routine hygiene. The foreskin becomes retractile with time. Only about half of infants at one year of age have a retractile foreskin, but this rises to 90% by age four. By the teen years, essentially all males

should have retractile foreskins. Whether a child with a non-retractile foreskin should undergo circumcision is a controversial question. As noted, by puberty essentially all males will have a retractile foreskin. It should be noted that a non-retractile foreskin needs to be differentiated from phimosis, in which case the foreskin is non-retractile due to scar tissue being present, often caused by adhesions formed after forcible retraction. In the case of phimosis, therapy with a steroid cream should be attempted and if unsuccessful, then circumcision should be considered.

Answered by:

Dr. Michael Rieder



Frequency of Bone Density Study

12.

How often should bone density be measured?

Question submitted by:
Dr. Gayle Garber
Conception Bay South,
Newfoundland

Bone density study provides helpful information with respect to bone strength and in general, there is a correlation between worsening bone density and an increase in the risk of fractures. The information obtained from the bone density study, however, is only part of the picture and several other risk factors for fractures (family history, personal history of fractures, use of glucocorticoids, presence of rheumatoid arthritis, excessive alcohol intake and smoking, etc.) need to be addressed. Thus, two patients with the same bone density may have very different fracture risks. A 53-year-old healthy female without a personal or family history of fractures who is found to have a lumbar spine T score of -1.5 has a much lower risk of fracture than a 75-year-old smoker with the exact

same T score. Thus, the 75-year-old needs aggressive treatment whereas the 53-year-old, whose fracture risk is not very high, may not necessarily benefit from treatment to the same extent. It is therefore recommended that physicians assess the fracture risk of the patients and obtain bone density measurements accordingly. Patients at a high risk of fracture (> 20% 10-year risk) require measurements every one to two years, patients with a low (< 10% 10-year fracture risk) should have their bone density measured every five years and those with a moderate risk of fracture, every two to three years.

Answered by:
Dr. Hasnain Khandwala

Metformin and Polycystic Ovary Syndrome (PCOS)

13.

Over the past few years, I have been seeing metformin used for treatment of infertility in women with PCOS. How does this work?

Question submitted by:
Dr. Katherine J. M. Abel
Leduc, Alberta

Metformin and other insulin-sensitizing agents were initially recommended for ovulation induction in women with PCOS and infertility based on several case series and uncontrolled studies. Theoretically, metformin's effect on insulin reduces androgen levels and allows for resumption of a normal menstrual cycle. However, two recent randomized controlled trials have not shown an advantage to metformin for ovulation induction above the

current standard first-line agent, clomiphene citrate and in fact one study showed it was less effective. Therefore, the most recent 2008 recommendations are to use clomiphene citrate as a first-line agent for ovulation induction and to reserve the use of metformin for women with glucose intolerance.

Answered by:
Dr. Kimberly Liu

Investigations for White Blood Cells Lower than "N" Range

14.

In healthy adults, when are investigations needed for white (neutrophilic) blood cells lower than "N" range?

Question submitted by:
Dr. Karen Lundgard
Peace River, Alberta

Thorough clinical history and careful medical examination are most helpful to exclude the common causes for neutropenia, such as drugs, specific viral infections, connective tissue diseases, hypersplenism, allergies, vitamin deficiencies, etc. In our centre, examination of peripheral blood film is required when the white blood cell count is $\leq 3 \times 10^9/L$, to exclude neoplastic and preneoplastic conditions.

When no cause is found, in the absence of anemia or thrombocytopenia, then the diagnosis of chronic idiopathic neutropenia can

be made. Individuals with this entity do not usually have manifestation until the neutrophil count is $< 0.5 \times 10^9/L$ and do not require more than annual check-up since they have no increased risk of progression to hematological malignancy. If there is any suspicion of neoplastic or preneoplastic condition, a bone marrow biopsy may be required.

Answered by:
Dr. Kamilia Rizkalla and
Dr. Kang Howson-Jan

Infrapatellar Bursitis

15.

What is the diagnosis and treatment of infrapatellar bursitis?

Question submitted by:
Dr. Dominic Shiu
Abbotsford, British Columbia

The diagnosis of bursitis is made clinically. Patients complain of marked tenderness at the site of the bursa. They may have pain on active knee movement and at rest. There is often associated swelling of the bursa. Bursal fluid aspiration and analysis are required to determine the cause of the bursitis.

Bursitis may be precipitated by trauma (*i.e.*, kneeling), crystal deposition disease (*i.e.*, gout), or infection. After aspiration, a compression dressing may be applied. The patient should be advised to avoid kneeling. The treatment depends on the cause of the bursitis. Septic bursitis often warrants repeated aspirations as well as antibiotics. Gout can be treated with NSAIDs or a local corticosteroid injection. Traumatic bursitis can usually be treated conservatively with rest, ice and avoiding the precipitating activity. NSAIDs may be used to decrease pain and swelling.

Answered by:
Dr. Elizabeth Hazel

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Diagnosis and Management for Hirsutism

16. What is the management, diagnosis and treatment for hirsutism?

Question submitted by:
Dr. Danny McKinnon
Quebec, Quebec

Hirsutism is the growth of excessive hair in the androgenic governed areas such as face, torso, breasts (this is distinct from hypertrichosis which is defined differently as excess hair growth in mainly nonandrogenic areas, caused often by drugs such as cyclosporine, phenothiazides, minoxidil, phenytoin). The cause can be overproduction of androgens produced by the adrenals (Cushing's, CAH, tumours) or by the ovaries (PCOS, tumours) or altered androgen transport (low sex hormone binding globulin [SHBG]—diabetes and hypothyroidism, hyperinsulinemia, obesity, exogenous androgens), or receptor hypersensitivity (familial, racial). Diagnosis therefore requires a dermatologic and endocrine assessment. Thyroid indices, testosterone, dehydroepiandrosterone sulfate, androstenedione,

luteinizing hormone, follicle-stimulating hormone, 17-Hydroxyprogesterone and urinary cortisol may be done. If indicated, imaging for PCOS, ovarian and adrenal neoplasms may be helpful. Management will depend on the results from the work-up but can simply be local hair removal (*i.e.*, electrolysis, laser, plucking, waxing, shaving or eflornithine hydrochloride cream). Systemic management may include OCs, spironolactone, cyproterone acetate and flutamide for androgen receptor blockage, oral steroids for adrenal suppression, or finasteride to reduce 5- α reductase activity. In cases of insulin excess, metformin may be helpful.

Answered by:
Dr. Scott Murray

Contact Between a Pregnant Woman and a MRSA-Positive Person

17. What do you do, if anything, for a pregnant woman who has had close contact with someone who is methicillin-resistant *Staphylococcus aureus* (MRSA) positive? Do you do nasal swabs and treat her if positive?

Question submitted by:
Dr. A. Ajike Oladoyin
Calgary, Alberta

Simple carriage of MRSA does not necessarily confer an increased risk of infection. It is reasonable to document carriage in a high-risk individual by swabbing the external nares and perhaps other warm, moist areas such as the axillae, groin and perianal region. Catheters and open wounds should also be screened. If a pregnant woman is found to be positive, this would influence treatment should she (or the newborn) eventually develop an infection commonly associated with *S. aureus*. Depending on the resistance profile, the choice of antibiotics in such cases may be difficult and require the advice of

an expert. Treating or “decolonizing” an asymptomatic carrier is unlikely to be of significant benefit in most cases. Many otherwise healthy women can be expected to lose their carrier status spontaneously over time. There is controversy over how to decolonize carriers and some of the agents used may be hazardous during pregnancy. It is probably harmless to use an antiseptic soap and recheck the carrier status periodically.

Answered by:
Dr. Michael Libman

Acrylate Allergy

18. **Is it common that workers (or clients) have an allergy (respiratory or skin) to gel nail products which contain acrylate?**

Question submitted by:
Dr. Nicole Lambert
Quebec, Quebec

Acrylates are a common cause of allergic contact dermatitis. Acrylates are used in lacquers, plastics, dental and orthopedic materials, coatings and, increasingly, adhesives. The latter include tapes, stickers, office supplies and artificial fingernails. Uncured adhesives containing acrylate monomers cause skin sensitization, especially glues containing cyanoacrylates. These may cause eyelid eczema, nummular eczema on the hands and periungual dermatitis (in the case

of artificial fingernails fixed with acrylate adhesive). The major allergens in these patients are ethyl cyanoacrylate and methyl cyanoacrylate. These same adhesives may cause occupational forms of allergic contact dermatitis. Typically, a panel of several acrylates is used for patch testing to screen for acrylate hypersensitivity.

Answered by:
Dr. Peter Vadas

Switching a Patient to Other Classes of Antihypertensives

19. **For patients > 60-years-old with hypertension and well-controlled with β -blockers, should we switch them to other classes of antihypertensives?**

Question submitted by:
Dr. Benjamin Choy
Markham, Ontario

Whilst once first-line treatment for hypertension, β -blockers are no longer recommended by the Canadian Hypertension Education Program (CHEP) in 2007 for patients \geq 60-years-old without another compelling indication, such as coronary artery disease or congestive heart failure. β -blockers do not perform as well as other drugs, particularly in the elderly and there is increasing evidence that the most frequently used β -blockers, especially in combination with thiazide-type diuretics, carry an unacceptable risk of provoking Type 2 diabetes. In primary hypertension, β -blockers appear

to offer no advantage for preventing MI or death and less advantage than other antihypertensive drugs for preventing stroke.

Among hypertensive patients who are \geq 60-years-old and without another indication for β -blockers, I would recommend switching the β -blocker to a thiazide diuretic, a calcium channel blocker, or an ACE inhibitor.

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Answered by:
Dr. Chi-Ming Chow



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