1. Facet blocks for degenerative disc disease pain

Are facet blocks helpful for chronic neck and back pain from degenerative disc disease?

Submitted by:
Martin Lee, MD
Pickering, Ontario

The facet joint is frequently the origin of chronic lower back pain, but the diagnosis tends to be clinical, based on the presence of localized lumbar pain that may radiate to the posterior thigh. Injections of corticosteroids into facet joints may be therapeutic as well as diagnostic for the facet joint syndrome. Only one study directly compared corticosteroid injections into the facet joints vs. saline and found no significant difference between the groups at one and three months follow up (but some benefit was seen in the corticosteroid group after six months).

Practically, in experienced hands, this procedure can be utilized with some success, but convincing evidence is lacking on the long term benefits. Given the limited data available, it is hard to draw firm conclusions and therefore, it is difficult to endorse this procedure with enthusiasm.

Resource
1. Carette S, Marcoux S, Truchon R, et al: A controlled trial of corticosteroid injections into facet joints for chronic low back pain. NEJM 1991; 325(14):1002-7.

Answered by:
Dr. Michael Starr

2. How to diagnose parathyroid conditions?

What is the best way to diagnose parathyroid conditions?

Submitted by:
Bhooma Bhagana, MD
London, Ontario

Primary hyperparathyroidism (PHP) is the most common parathyroid condition and will be focused upon here. PHP is present in about 0.1% of the population, with incidence peaking above age 65. About 50% of those affected by the condition are asymptomatic. Calcium renal stones are present in 50% of patients who are symptomatic. Other symptoms may include weakness, anorexia, CNS depression, hypertension, polyuria, polydipsia and GI disturbances.

Hypercalcemia is present in PHP, although occasionally, it may be intermittent. Parathyroid hormone levels, commonly elevated when tested for with most highly sensitive assays, should be measured at the same time as the serum calcium levels. Urinary calcium excretion, usually measured in a 24-hour test, is usually elevated or high-normal. Serum phosphate is elevated in 50% of cases.

Answered by:
Dr. Vincent Woo

3. Debate over allergy desensitization

Over the years, allergy desensitization injections have fallen out of favour. However, wouldn't it make sense to desensitize young allergy patients for their rhinitis so they would not go on to develop asthma, which seems to be worsening in frequency and severity?

Submitted by:
Paul Stephan, MD
Scarborough, Ontario

Traditional immunotherapy (allergy shots), characterized by subcutaneous injection of the relevant pollen, has for years shown efficacy in the treatment of allergic hayfever. Recently, with the advent of more effective medical therapies (antihistamines, nasal corticosteroids), the need for immunotherapy has decreased. However, the results of decades of research are clear: immunotherapy reduces disease manifestations of allergic rhinitis (and in some cases, asthma) and these effects may persist long after the discontinuation of the immunotherapy.

Rather than falling out of favour, there has been a recent renaissance in the development of more effective and safer forms of immunotherapy. Examples include:

- recombinant and modified allergies,
- peptides, which stimulate T-cell receptors without engaging IgE antibodies,
- DNA vaccines,
- alternate routes of therapy (*i.e.*, sublingual) and
- use of various adjuvants (*i.e.*, interleukin-12, immunostimulatory sequences, mycobacteria, *Escherichia coli*), which try to "switch" the T-cell immune response from the more allergenic TH2 type to the TH1 type.

Anti-IgE monoclonal antibody (omalizumab), another form of immunotherapy, is effective in allergic rhinitis and moderate-to-severe asthma. These developments are quite exciting, renewing the interest in immune modulation with potential long term benefits to patients, rather than temporarily suppressing disease manifestations with medical treatment. There is already evidence that early treatment of allergic rhinitis may forestall the development of asthma and the "one airway" concept directs us to the fact that treatment of both the upper and lower airways is important for optimal control of allergic asthma.

A recent follow-up study examining children treated with grass pollen immunotherapy has shown benefit in treated patients three years after discontinuation of therapy.[1] The immunotherapy-treated children had significantly less asthma after five years, as evaluated by clinical symptoms (odds ratio 2.68 [1.3 to 5.7]) in favor of immunotherapy for the prevention of the development of asthma and a significantly less number of patients reported an increase in asthma scores ($p < 0.01$).

In conclusion, you are likely to see greater usage of various forms of immunotherapy in the near future.

References
1. Eng PA, Borer-Reinhold M, Heijnen IA: Twelve-year follow up after discontinuation of preseasonal grass pollen immunotherapy in childhood. Allergy 2006; 61(2):198-201.

Answered by:
Dr. Tom Gerstner

4. Starting medication and dosage for urge incontinence?

What is the best starting medication and dosage for urge incontinence?

Submitted by:
Zishan Allibhai, MD
Kingston, Ontario

Antimuscarinic anticholinergic medication (to be avoided in glaucoma patients) are used for bladder control in daytime urge incontinence, caused by overactive bladder. These include:

- oxybutynin 5 mg, p.o., t.i.d.,
- oxybutynin chloride 10 mg to 15 mg, p.o., q.d.,
- tolterodine 2 mg b.i.d. and
- tolterodine 4 mg, q.d.

The most bothersome and frequent side-effects are mouth dryness and constipation.

The oxybutynin skin patch, applied twice weekly, delivers 3.9 mg, q.d., of medication and minimizes these side-ffects. Flavoxate 200 mg, p.o., q.i.d., although less efficient, can also be used. If nocturia is a significant complaint, imipramine 10 mg to 25 mg q.h.s., or desmopressin 0.2 mg to 0.6 mg p.o., q.h.s., can be tried. There is a risk of hyponatremia for patients above 65 years old using this latter drug. It is imperative for these patients to check their blood sodium level three months following initiation of desmopressin.

Answered by:
Dr. François Péloquin

5. Association between HPV and oral cancer?

HPV is associated with cancer of the cervix. Is there any HPV association with oral cancer?

Submitted by:
B. Lee, MD
Toronto, Ontario

As noted, human papillomavirus (HPV) is the causal agent of cervical cancer, with the majority caused by the oncogenic HPV subtypes 16 and 18. Like cervical cancer, the majority of oral cancers are squamous cell carcinomas. There is now increasing evidence from multiple case-controlled studies that HPV is also involved in the etiology of cancer of the oral cavity and oropharynx. However, further studies regarding the mechanism of causality and transmission are required.

Answered by:
Dr. Sharlene Gill

Cont'd on page 30 ⟶

6. Managing suspected inflammatory bowel disease

? In a patient with suspected inflammatory bowel disease, where the waiting time for a colonoscopy is prolonged, is it appropriate to start empiric therapy with a 5-acetylsalicylic acid product?

Submitted by:
B. Toews, MD
Coquitlam, British Columbia

Assuming the patient has mild-to-moderate symptoms (*i.e.*, the patient is ambulatory, with no evidence of systemic toxicity, no dehydration, no signs of obstruction and fewer than six bowel movements daily), the most important task is making a firm diagnosis.

The differential diagnosis for inflammatory bowel disease (IBD) is broad and depends on the symptoms at presentation. For a patient with diarrhea, one must rule out infectious causes, such as shigellosis, *Salmonella*, *Escherichia coli*, amoebiasis, giardiasis and *Clostridium difficile*.

Cytomegalovirus can mimic Crohn's disease in an immunocompromised patient. In the appropriate setting, TB and yersinia can also mimic Crohn's disease. Small intestinal symptoms can also be due to non-infectious causes such as lymphoma, ischemia, celiac disease and carcinoid syndrome. Baseline investigations should include appropriate stool cultures, C-reactive protein or erythrocyte sedimentation rate and a complete blood count, which may show anemia or thrombocytosis. Small bowel follow-through or barium enema may show evidence of mucosal disease or complications, such as a stricture or a fistula. If these investigations do point to IBD, the question is whether treatment with 5-aminosalicylic acid (5-ASA) would be effective.

In ulcerative colitis, 5-ASA is the mainstay of therapy for mild-to-moderate disease. In one study, patients who took 4.8 g of mesalamine q.d. had a 24% chance of complete response and a 50% chance of partial response at six weeks, compared to a 5% complete response and a 13% partial response with placebo.[1]

For Crohn's disease, the role of 5-ASA agents is less clear. In another study, high-dose mesalamine (4 g q.d.) was shown to induce remission in 43% of patients, compared to 18% with placebo,[2] but other studies have not shown such a significant benefit. One meta-analysis showed a statistically greater reduction in the Crohn's Disease Activity Index with mesalamine compared to placebo, but the difference (18 points out of over a total 150) was of uncertain clinical relevance.[3]

If the 5-ASA preparation is effective in inducing remission, this could impede subsequent investigation and diagnosis. For example, a seemingly normal colonoscopy may be due to medically induced remission, or perhaps the patient never had IBD at all. I would recommend against prescribing a 5-ASA until a firm diagnosis of IBD has been made. At that time, a treatment decision can be made based on the type of IBD, the severity and the location of disease.

In the interval prior to assessment by a gastroenterologist, symptomatic therapy, such as loperamide, can be initiated, once infection has been ruled out. Above all, the value of direct communication with a GI consultant cannot be underestimated in expediting a referral. If any alarming features are present, this should be done promptly.

References
1. Schroeder KW, Tremaine WJ, Ilstrup DM: Coated oral 5-aminosalicylic acid therapy for mildly to moderately active ulcerative colitis. A randomized study. N Engl J Med 1987; 317(26):1625-9.
2. Singleton JW, Hanauer SB, Gitnick GL, et al: Mesalamine capsules for the treatment of active Crohn's disease: Results of a 16-week trial. Pentasa Crohn's Disease Study Group. Gastroenterology 1993; 104(5):1293-1301.
3. Hanauer SB, Stromberg U: Oral pentasa in the treatment of active Crohn's disease: A meta-analysis of the double-blind, placebo controlled trials. Clin Gastroenterol Hepatol 2004; 2(5):379-88.

Answered by:
Dr. Robert Bailey
Dr. Lana Bistritz

7. Androgen therapy contraindicated in sleep apnea patients?

Why is androgen therapy contraindicated in patients with sleep apnea?

Submitted by:
P.L. Tham, MD
London, Ontario

Obstructive sleep apnea (OSA) is a common disorder related to frequent cessation or marked reduction of airflow, due to obstruction of the upper airway, despite continued respiratory efforts during sleep. OSA occurs predominantly in men. Testosterone therapy has been reported to be useful in the treatment of men with androgen deficiency, who have low testosterone levels, to induce and maintain secondary sex characteristics and to improve sexual function, muscle bulk and strength, along with bone mineral density.[1]

However, along with other potential side-effects (*e.g.*, polycythemia, altered hepatic function and lipid profiles, development or progression of prostate cancer) exogenous testosterone therapy has also been shown to induce or worsen OSA.[1] The mechanisms (*e.g.*, altered ventilatory drive, neuromuscular control of upper airway patency, *etc.*) by which testosterone affects OSA is unclear. Individuals treated with exogenous androgen therapy should be carefully monitored for the development or worsening of OSA.[2]

References
1. Bhasin S, Cunningham GR, Hayes FJ, et al: Testosterone therapy in adult men with androgen deficiency syndromes: An endocrine society clinical practice guideline. J Clin Endocrinol Metab 2006; 91(7):1995-2010.
2. Yee B, Liu P, Phillips C, et al: Neuroendocrine changes in sleep apnea. Curr Opin Pulm Med 2004; 10(6):475-81.

Answered by:
Dr. Paul Hernandez

8. LTRAs recommended for mild asthma?

Are LTRAs recommended in the treatment of mild asthma in adults?

Submitted by:
Dave Grunbaum, MD
Lachine, Quebec

Asthma is an inflammatory disease of the airways. The cornerstone of anti-inflammatory treatment in asthma continues to be inhaled corticosteroids (ICS).[1] An alternative therapy is a leukotriene receptor antagonist (LTRA), such as montelukast or zafirlukast, which block some of the chemical mediators implicated in allergic and inflammatory pathways.

There is good evidence that the use of low dose ICS (< 400 µg beclomethasone q.d., or equivalent) is more effective than monotherapy with a LTRA.[1-2] However, for patients with mild asthma (*i.e.*, normal lung function, intermittent symptoms treated with short-acting ß-2-agonist p.r.n.) who cannot use ICS, a LTRA is an alternative. Patients with mild, seasonal allergic asthma may benefit from the addition of either LTRA and antihistamine, or low dose ICS during the allergy season to help control both their upper- (asthma) and lower- (allergic rhinitis) airway symptoms.[3]

References
1. Lemiere C, Bai T, Balter M, et al: Adult asthma consensus guidelines update 2003. Can Respir J 2004; 11(Suppl A):9A-33A.
2. Ducharme F: Inhaled glucocorticoids vs. leukotriene receptor antagonists as single agent asthma treatment: Systematic review of current evidence. BMJ 2003; 326(7390):621.
3. Meltzer EO, Malmstrom K, Lu S, et al: Concomitant montelukast and loratidine as treatment for seasonal allergic rhinitis: A randomized, placebo-controlled trial. J Allergy Clin Immunol 2000; 105(5):917-22.

Answered by:
Dr. Paul Hernandez

9. Perineal pain due to old bike injury

A 40-year-old male patient presents with intense perineal pain every time he sneezes (he injured his perinium at age 10 while riding a bike). How should he be treated?

Submitted by:
Ceclie Angela Ryder, MD
Vancouver, British Columbia

This patient has a typical history of straddle injury, which can result in urethral trauma. In turn, urethral trauma can evolve, typically into a urethral stricture. Even though the symptoms of this entity are classically irritative and obstructive, this patient clearly requires a urological evaluation. A post-voiding bladder scan, a uroflow and a cystoscopy should be done first, in order to properly assess his problem.

Answered by:
Dr. Hugues Widmer

10. How to make an early diagnosis of pancreatic cancer

Are there any clues to help make an early diagnosis of pancreatic cancer?

Submitted by:
Wendy Porten, MD
Vancouver, British Columbia

Early or asymptomatic diagnosis of pancreatic cancer is uncommon. There are currently no blood tests or available screening tests that can accurately detect early cancers of the pancreas.

Endoscopic ultrasound may be of value to screen patients with a high-risk family history of pancreatic cancers. Typical signs and symptoms of pancreatic cancer include:

- jaundice,
- weight loss,
- abdominal pain,
- thromboembolism and
- diabetes.

Unfortunately, a symptomatic presentation is commonly associated with unresectable and/or advanced-stage disease.

Answered by:
Dr. Sharlene Gill

11. Significance of elevated PTH in an osteopenia patient

What is the clinical significance of elevated PTH in a patient with normal calcium levels and osteopenia?

Submitted by:
Smadar Tourjman, MD
Montreal, Quebec

An elevated parathyroid hormone (PTH) level in patients with a normal calcium level likely represents poor oral calcium intake, or poor calcium absorption in patients with normal renal function.

However, 10% of patients with hyperparathyroidism may have a normal calcium level. There may be concominant vitamin D deficiency in some of these patients. Measuring a 24-hour calcium excretion may be helpful as well as measuring vitamin D metabolites.

Answered by:
Dr. Vincent Woo

12. Oral ulcers from chemotherapy

What can I do to help patients on chemotherapy who get oral ulcers?

Submitted by:
Shelly Smith, MD
Edmonton, Alberta

Stomatitis is a common complication of chemotherapy and may present as:

- soreness,
- erythema,
- inflammation, or
- dysphagia.

The rapidly dividing cells of the oral mucosa are particularly susceptible to the toxic effects of chemotherapy, which may progress to ulceration and infection if leukopenic. Painful ulcers should be cultured in the setting of a fever. Culprit organisms may include:

- candida,
- herpes simplex,
- *streptococci*, or
- *staphylococci.*

Oral infections may lead to sepsis. Other oral manifestations of chemotherapy may include:

- taste alteration,
- bleeding and
- xerostomia.

Excellent oral and dental hygiene is important, as is maintaining an adequate caloric intake. Topical coating/analgesic agents such as benzydamine or sucralfate suspension, or compounded combination preparations (*i.e.*, “miracle” or “magic” mouthwash solutions) may be helpful.

Answered by:
Dr. Sharlene Gill

Cont’d on page 36 ⟶

13. Bisphosphonate or calcium/vitamin D for patient with severe osteoporosis?

? The DEXA scan of a 42-year-old premenopausal woman, with a strong family history of osteoporosis, shows severe osteoporosis of the spine and hip (her T-score is -3). Should she be precribed a bisphosphonate or only calcium and vitamin D?

Submitted by:
Marianne Willis, MD
Vanderhoof, British Columbia

The definition of severe osteoporosis is a dual energy X-ray absorptiometry (DEXA) T-score of < -2.5, plus an associated fragility fracture. If this is the case with this patient and assuming that any modifiable risk factors have been addressed, then she would be a candidate for bisphosphonate treatment, in addition to adequate calcium and vitamin D. There is very little data on how to treat premenopausal women. The risk of long-term bisphosphonate treatment for this patient (since she is not too far from menopause) is probably not a major concern.

Table 1 illustrates that age has a big impact in stratifying patients into risk categories for future fractures. The presence of another significant risk factor would move an individual to the next category (*e.g.*, a patient in a moderate-risk category would move into a high-risk category). This table highlights the fact that most premenopausal women (in the absence of other risk factors) would be managed adequately with calcium and vitamin D alone.

Answered by:
Dr. Michael Starr

Table 1

Fracture risk in women according to dual energy X-ray absorptiometry (DEXA) T-scores

Age	10-year risk factor		
	Low (< 10%)	Moderate (10% to 20 %)	High (> 20%)
	(DEXA T-scores)		
50	> -2.3	-2.2 to -3.9	< -3.9
55	> -1.9	-1.9 to -3.4	< -3.4
60	> -1.4	-1.4 to -3.0	< -3.0
65	> -1.0	-1.0 to -2.6	<-2.6
70	> -0.8	-0.8 to -2.2	< -2.2
75	> -0.7	-0.7 to -2.1	< -2.1
80	> -0.6	-0.6 to -2.0	< -2.0
85	> -0.7	-0.7 to -2.2	< -2.2

14. Prostate size and pain: what is the correlation?

? How direct is the correlation between prostate size and the degree of bother that a patient experiences?

Submitted by:
John E. Dawson, MD
Ottawa, Ontario

There is no direct link between prostate size and the degree of bothersome symptoms. This is due to the fact that a significant proportion of the obstruction caused by the increased muscle tone within the prostate and bladder neck occurs with aging. For this reason, α-blockers provide rapid and effective relief of symptoms due to benign prostatic hyperplasia (BPH).

However, increasing prostate size is a risk factor for retention and other complications due to BPH. Therefore 5-α-reductase inhibitors are effective in reducing the risk of long-term complications due to BPH associated with large prostate glands.

Resources
1. McConnell JD, Roehrborn CG, Oliver OM, et al: The long-term effect of doxazosin, finasteride and combination therapy on the clinical progression of benign prostatic hyperplasia. NEJM 2003; 349(25):2385-96.

Answered by:
Dr. Fred Saad

15. Role of inhaled corticosteroids for cough treatment

? What is the role of inhaled corticosteroids in patients with cough?

Submitted by:
Norman Wolkove, MD
Montreal, QC

Chronic cough (cough lasting > 8 weeks) is an extremely common presenting complaint in primary care. Recently published evidence-based clinical practice guidelines report that in adult non-smokers with a normal chest roentgenogram, not taking an angiotensin-converting enzyme inhibitor, the most common causes of chronic cough include (alone or in combination):

- upper airway cough syndrome (formerly called post-nasal drip syndrome) due to various rhinosinus conditions,
- asthma,
- gastroesophageal reflux disorder and
- nonasthmatic eosinophilic bronchitis.[1]

For a number of the possible conditions associated with chronic cough, inhaled corticosteroids will likely play a role in the long-term management (*e.g.*, asthma, nonasthmatic eosinophilic bronchitis and allergic rhinosinusitis). A focused approach to the investigation and treatment of these conditions, rather than empiric therapy with inhaled corticosteroids without establishing a diagnosis, is likely to result in a successful outcome in the majority of patients with chronic cough.

References
1. Irwin RS, Baumann MH, Bolser DC, et al: Diagnosis and management of cough: ACCP evidence-based clinical practice guidelines. CHEST 2006; 129(1 Suppl):1S-23S.

Answered by:
Dr. Paul Hernandez

16. Role of single inhaler therapy in asthma management

What is the role of single inhaler therapy in asthma management?

Submitted by:
M.I. Ravalia, MD
Twillingate, Newfoundland

The administration of inhaled corticosteroid (ICS) remains the first-line maintenance pharmacotherapy for asthma treatment.[1] However, when asthma patients are not well controlled with regular use of ICS, use of additional pharmacotherapy, such as a long-acting ß-agonist (LABA) or leukotriene receptor antagonist is recommended.[1] Typically, an ICS/LABA combination is prescribed in a single inhaler (*e.g.*, fluticasone/salmeterol, budesonide/formoterol, *etc.*), with an additional reliever inhaler (short-acting ß-agonist) used, p.r.n., to treat acute asthma symptoms.

Budesonide/formoterol presents the opportunity to treat asthma with a single inhaler for both maintenance and acute symptom relief. The LABA component, formoterol, is long-acting, has a fast onset of action and its side-effects in doses up to 64 µg q.d. are acceptable.[2] A number of recently published studies have demonstrated that a treatment strategy using budesonide/formoterol, as both maintenance and as a reliever inhaler, is efficacious in treating asthma, as long as a minimum daily dose is used.[3-4] Presently, it is not possible to state whether a strategy using a single ICS/LABA inhaler is better than fixed dose ICS/LABA combination, plus reliever. In patients with mild-to-moderate asthma, the minimum daily maintenance dose required to maintain symptom control and prevent exacerbations appears to be two puffs of budesonide 200 µg/formoterol 6 µg q.d. It also remains extremely important for physicians to regularly assess the level of asthma control in all their patients, regardless of the treatment strategy chosen.[1]

References
1. Boulet L-P, Becker A, Berube D, et al: Summary of recommendations for the Canadian Asthma Consensus Report. CMAJ 1999; 16(11 Suppl):S1-S12.
2. Tattersfield AE, Lofdahl CG, Postma DS, et al: Comparison of formoterol and terbutaline for as-needed treatment of asthma: A randomized trial. Lancet 2001; 357(9252):257-61.
3. Lundborg M, Wille S, Bjermer L, et al: Maintenance plus reliever budesonide/formoterol compared with a higher maintenance dose of budesonide/formoterol plus formoterol as reliever in asthma: An efficacy and cost-effectiveness study. Curr Med Res Opin 2006; 22(5):809-12.
4. O'Byrne PM, Bisgaard H, Godard PP, et al: Budesonide/formoterol combination therapy as both maintenance and reliever medication in asthma. Am J Respir Crit Care Med 2005; 171(2):129-36.

Answered by:
Dr. Paul Hernandez

Cont'd on page 40 ⟶

17. Chronic elevated heparin leads to osteoporosis?

What is the mechanism whereby chronic elevated heparin leads to osteoporosis?

Submitted by:
A. Buckridan, MD
Toronto, Ontario

In most circumstances, heparin is given for short periods of time and any effect on bone mineral density is trivial. During pregnancy, women may receive long-term heparin therapy due to the teratogenicity of warfarin. In this population, a few studies of the mechanism of bone loss have been explored. These studies have concluded that the mechanism of bone loss is predominantly a decrease in bone formation, with some indication of increased bone resorption.

Low-molecular weight heparins have an equally adverse effect on bone metabolism as unfractionated heparin. While bone density increases after the discontinuation of heparin therapy, it is not clear if the recovery is complete.

Resources
1. Wolinsky-Friedland M: Drug-induced metabolic bone disease. Endocrinol Metab Clin North Am 1995; 24(2):395.
2. Van der Wiel HE, Lips P, Huijgens PC, et al: Effects of short-term low-dose heparin administration on biochemical parameters of bone turnover. Bone Miner 1993; 22(1):273.
3. Muir JM, Andrew M, Hirsch J, et al: Histomorphometric analysis of the effects of standard heparin on trabecular bone in vivo. Blood 1996; 88(4):1314-20.
4. Pettila V, Leinonen P, Markkola A, et al: Postpartum bone mineral density in women treated for thromboprophylaxis with unfractionated heparin or LMW heparin. Thromb Haemost 2002; 87(2):182-6.

Answered by:
Dr. Elizabeth Hazel
Dr. Michael Starr

18. Switch or augment an antidepressant?

For resistant depression, is switching to a different antidepressant vs. augmenting or combining it with another antidepressant recommended?

Submitted by:
M. Cheng, MD
Ottawa, Ontario

Standards of practice suggest that when faced with a major depression, an antidepressant will be prescribed to the patient. Its dose will be gradually increased until it reaches the recommended therapeutic dose. If no improvement is obtained after an appropriate interval of time (usually four weeks), the dose will be increased to the maximum allowed dose, provided it is reasonably tolerated by the patient.

If there is still no improvement, then one of the following two approaches should be considered:

- If the patient reports no improvement on the highest possible dose of the antidepressant, then the antidepressant in question should be stopped. The physician should switch to a completely different antidepressant and repeat the whole process.
- If, on the other hand, the patient reports some modest improvement on the highest recommended dose of the antidepressant, the physician will keep that antidepressant and augment it (or combine it) with another antidepressant or with a mood stabilizer, such as lithium or olanzapine, which is also considered a mood stabilizer in addition to being an atypical antipsychotic.

Answered by:
Dr. Hany Bissada

19. Metformin vs. TZD

Is metformin or TZD the best initial treatment for Type 2 diabetes?

Submitted by:
Noel Rosen, MD
Toronto, Ontario

Both metformin and thiazolidinediones (TZDs) can be used as the initial treatment for Type 2 diabetes and each will have pros and cons. Your choice must be individualized for each patient.

The recent Canadian Diabetes Association 2003 Clinical Practice Guidelines has a useful algorithm:

- For patients with mild-to-moderate hypoglycemia with a hemoglobin A1c of < 9% and a body mass index (BMI) ≤ 25, metformin is the medication suggested first. Patients with a BMI < 25 can be started with metformin, a TZD, insulin secretagogue, insulin or acarbose. Patients with marked hyperglycemia with a hemoglobin A1c > 9.0% can be started with two oral agents from different classes or insulin would be indicated.

Answered by:
Dr. Vincent Woo

20. New chemo treatments

Are there any new chemotherapy treatments for esophageal or pancreatic cancers?

Submitted by:
Greag Karaguesian, MD
Haliburton, Ontario

For esophageal cancers, cisplatin and 5-fluorouracil remain the standard options. New agents, including, irinotecan, epirubicin and docetaxel may have activity and thus, combination regimens with epirubicin, cisplatin and 5-fluorouracil or irinotecan and 5-fluorouracil have been explored for metastatic disease.

For pancreatic cancer, the challenge to identify active chemotherapy has been significant. Multiple trials of gemcitabine in combination with other chemotherapy agents have failed to demonstrate superior results when compared to gemcitabine alone. Gemcitabine with erlotinib, a targeted therapy against the epidermal growth factor receptor, appears to be modestly more efficacious. Current trials are exploring combinations of chemotherapy and targeted or biologic therapies to improve outcomes for patients with pancreatic cancer.

Answered by:
Dr. Sharlene Gill

Cont'd on page 44 ⟶

21. Strategies for ascites

What are the current management and investigation strategies for ascites?

Submitted by:
Philip Fingrut, MD
Toronto, Ontario

Successful treatment of ascites depends on the accurate diagnosis of the etiology. Patients should have an ultrasound to confirm or refute the presence of ascites. It is an easy, sensitive and cost-effective imaging study.

Abdominal paracentesis with appropriate ascitic fluid analysis is the most efficient way to confirm the presence of ascites, diagnose their cause and, most importantly, to determine if the fluid is infected.

There are many tests to perform on peritoneal fluid, but the most important ones include:

- white blood cell count and differential (polymorphonuclear neutrophils > 250 cells/ml is highly suggestive of bacterial peritonitis) and
- serum ascites-albumin gradient is the best single test for classifying ascites.

The initial management of non-infective ascites consists of sodium restriction and diuretic therapy. A diet of no added salt to meals or cooking is usually sufficient. Furosemide and spironolactone are effective in 95% of patients. A relation of spironolactone, 100 mg, q.d. and furosemide, 40 mg, daily, is a good start. Men tend to develop gynecomastia, as spironolactone is a known anti-androgen. Amiloride, 10 mg, q.d. is a good substitution.

One must be mindful of electrolyte imbalances and renal comprise while on diuretics. Therapeutic paracentesis for symptom relief should be followed by intravenous albumin, 5 g, for each litre of ascites removed. Repeated paracentesis or TIPS may be required for diuretic refractory ascites (defined as the need for > 400 mg, q.d., of spironolactone and 160 mg, q.d., of furosemide). Dx

Answered by:
Dr. Robert Bailely
Dr. Christopher Szeto