CONSULTANT'S CORNER

Practical Answers To Your Everyday Questions

This month—8 Answers:

1. Scar reduction secrets

Are there any new products available that help in the reduction of scar formation?

Question submitted by:
Janki Butchey, MD
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Scar treatment remains a significant therapeutic challenge for doctors. Unfortunately, the evidence for many currently used treatments is poor and good clinical trials are lacking.

The most widely accepted topical therapy for reducing scar formation is silicone gel sheeting. Use of silicone gel sheeting is considered a first-line treatment for hypertrophic scars and keloids.[1,2]

Also known as hydrocolloid dressing, silicone gel sheeting is useful in the treatment of wounds during the initial stages of healing. It is used to prevent or reduce scar formation and not to treat pre-existing scars. It is usually applied at one to two weeks after suture removal or injury, 12 to 24 hours a day, for three to 12 months.

Another product receiving attention is imiquimod 5% cream, an immune response modifier used for genital warts. Two studies examining the use of imiquimod 5% cream post-operatively to prevent recurrence of excised keloids suggest that imiquimod may be useful in the prevention of keloid formation after surgery.[3,4]

Imiquimod may prove to be beneficial as therapy for a variety of scars, but at this time more studies are needed and this product is not yet in mainstream use.

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Answered by:
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2. Osteoporosis overview

Can you please comment on the appropriate treatment and work-up of osteoporosis?

Question submitted by:
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Osteoporosis is a major health disorder with significant impact on morbidity and health-care costs.

The evaluation of patients at risk of osteoporosis is to establish the diagnosis on the basis of assessment of bone mass, to establish the fracture risk and to make a decision with regard to therapy.

Osteorporosis is present when the T-score is at least minus 2.5 standard deviation.

History and physical examination are essential for the evaluation of fracture risk. Physicians should inquire about history of fragility fracture, loss of height and family history of fracture. Laboratory evaluation is necessary to rule out secondary causes of osteoporosis (hyperparathyroidism, thyroid disorders or malignancy).

Treatment of osteoporosis requires multiple measures implemented at the same time. Calcium, vitamin D, fall prevention and weight-bearing exercises are very important.

Pharmacologic therapy with agents that reduce the risk of fractures are indicated. There are many agents available on the market that have shown to be effective in the treatment of osteoporosis (risedronate, alendronate, rolaxifen, parathyroid hormone and estrogen). Selection of these agents is influenced by many factors, the most important factors being age, severity of osteoporosis, presence of post-menopausal symptoms, tolerability, patient preference and cost.

Answered by:
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3. Treating the lost libido

Is there a drug therapy without significant side-effects available to treat female patients with decreased libido?

Question submitted by:
Tommy Hong, MD
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Drug therapy for women with low sexual desire focuses on the biologic aspects of sexual function and dysfunction. Hormonal "replacement" therapy, medication for medical illnesses and medical treatment to reverse sexual side-effects of therapy are all roles that drugs can play to improve desire.

Testosterone replacement to restore high, physiologically "normal" levels can be done without significant side-effects. Transvaginal estrogen improves elasticity and blood supply to the vagina and reverses atrophy to improve coital comfort and increase desire and can be done without any change to endogenous estrogen levels.

Low desire and low energy result from medical problems, such as depression, diabetes, thyroid disease or hyperprolactinemia. Drugs to correct these conditions will restore energy and, indirectly, sexual desire.

Women who must take medication (*e.g.*, selective serotonin reuptake inhibitors) and who note sexual side-effects will benefit from a change of dose, change of brand or switching to a more "sex-friendly" medication (*e.g.*, bupropion).

Answered by:
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4. PPIs—Any dangers?

Is there any danger in the long-term use of PPIs?

Question submitted by:
Paul Provencal, MD
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In the past 20 years, proton pump inhibitors (PPIs) have become some of the most commonly prescribed medications in the world. Initial concerns of an increased risk of neuroendocrine tumours were never experienced.

Recent observational studies have noted an association between PPI use and both pneumonia[1] and pseudomembranous colitis.[2] However, such studies cannot exclude the possibility that the pre-existing illnesses for which the PPIs were prescribed account for the findings, as suggested in another observational study.[3]

At present, there does not appear to be any danger to long-term PPI use. However, it seems prudent to use PPIs only when indicated.

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Answered by:
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5. A new case of anorexia

What are the basic tests suggested for a new case of anorexia nervosa?

Question submitted by:
Judy Chow, MD
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The basic tests for anorexia nervosa, after a complete and extensive history and examination to establish the diagnosis, are:

- Temperature, pulse, respiration, blood pressure, weight and height body mass ratio
- Full blood count
- Electrocardiogram (Severe bradycardia demands hospitalization in the medical ward)
- Urinalysis
- Serum electrolytes (*e.g.*, Chem 30. looking for acidosis, especially with vomiting)
- Mineral deficiencies (*e.g.,* iron, magnesium calcium, *etc.)*
- Fasting blood sugar
- Thyroid algorithm
- Pregnancy test, like amenorrhoea, may be a primary feature
- Liver function tests can be done later
- Muscle function tests looking for evidence of catabolism
- Consultation with Medicine and Psychiatry

Answered by:
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6. Vaginal ring advisement

Please advise on the indications and use of the new contraceptive vaginal ring.

Question submitted by:
Cathy Brown, MD
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The etonogestrel and ethinyl estradiol vaginal ring is a flexible plastic ring that continuously releases a combination of progestin and estrogen into the vagina, providing reliable contraception, primarily via inhibition of ovulation. The 5.4 cm, flexible ring is inserted by the user and removed again after three weeks, allowing for a withdrawal bleed during a one-week, ring-free interval in each 28-day cycle.

Presumably due to less reliance on daily pill-taking, the vaginal ring's Pearl Index (annual pregnancy rate per 100 women) with typical use is 0.65-1.18, which is lower than combination oral contraceptive pills (OCPs) (three to four pregnancies/100 women/year).

The vaginal ring is indicated for any woman who wants effective, reversible, non-coitally dependent contraception. It is especially suitable for women who have difficulty taking a daily pill. Non-contraceptive benefits of combination OCPs, including decreases in acne and cancer of the ovary and endometrium, are presumably similar, but have not been specifically established for the vaginal ring and it should be considered for these indications with caution. Vaginal spermicide and miconazole do not appear to alter the vaginal ring efficacy. The ring does not protect against sexually transmitted infections.

Contraindications are identical to those for combination OCPs. Additional relative contraindications include women who are uncomfortable inserting the ring into the vagina and those with genital prolapse or vaginal stenosis that may interfere with ring retention. Obese women have been noted to have higher rates of pregnancy with low-dose combination OCPs and patches and this relationship has not been examined with the vaginal ring.

When initiating vaginal ring use, the first ring should be initiated within five days of the start of a normal menstrual period, within seven days of taking the last in a pack of combined OCPs or removing the last contraceptive patch, on the date when the next depot medroxyprogesterone acetate injection was due or the day after taking the last progestin-only OCP.

Should the ring fall out or be removed for less than three hours, it can be rinsed and reinserted; any longer delay and backup contraception is required for seven days. Because the vaginal ring releases active hormones for at least four weeks, delayed removal up to four weeks from the day of insertion should be treated with a ring-free week and reinsertion of a new ring. Contraceptive efficacy may be lost if the ring is in situ for longer than four weeks. After a ring-free interval, backup contraception should be used until a new ring has been in place for one week.

Women may experience hormonal or device-related side-effects, leading to discontinuation rates of 15% at one year. Hormonal side-effects are similar to other combination contraceptives, although less irregular bleeding has been noted in the first cycle of use. Average weight gain after one year is less than one kilogram. Device-related side-effects include leukorrhea, vaginitis and mechanical symptoms, such as expulsion, foreign body sensation and coital disturbance. Most women and their partners were unaware of the ring's presence during intercourse. Overall satisfaction and compliance with the vaginal ring is extremely high.

In summary, the new contraceptive vaginal ring is yet another tool in the primary-care physician's cache of options to offer women seeking reliable, reversible contraception.

Answered by:
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7. Depressive disorders and chronic pain—What's the link?

What is the link between depressive disorders and chronic pain syndrome?

Question submitted by:
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The causal relationship between depression and chronic pain remains uncertain. The occurrence of depression increases the risk of development of chronic pain, particularly in the elderly.

Depression can increase if chronic pain results in a loss of independence or mobility that decreases an individual's participation in social activities.[1]

There is a greater incidence of chronic pain in individuals with a strong, positive family history of depressive disorders, suggesting a biological vulnerability.[2]

Depression with chronic pain is associated with poorer coping skills and often interact adversely to increase morbidity and mortality. Suicidal ideation is a real risk and must be taken seriously.[3]

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8. Athlete's foot assistance

How would you effectively treat recurrent/persistent tinea pedis?

Question submitted by:
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The most common causative organisms of tinea pedis are *T. rubrum, T. mentagrophytes* and *E. floccosum*. These dermatophytes can be found in shoes, socks and flooring. They are notoriously hard to remove from clothing, sometimes being present more than five months after laundering.

When presented with a lesion not responding or responding poorly to topical antifungals, it is important to confirm the diagnosis of tinea pedis. Skin scrapings should be sent for culture and microscopy. Contact and dyshidrotic dermatitis and psoriasis should be ruled out. If the fungal infection is extensive, consider blood tests (*i.e.,* complete blood cell count, human immunodeficiency virus) to rule out immunosuppressed conditions. Secondary bacterial infection should also be ruled out.

Inspect all toenails. Nails can be a chronic reservoir for dermatophytes. Any suspicious nail should be sampled and sent for culture and microscopy.

If the toenails are free of fungal infection, consider using systemic antifungals (*i.e.*, itraconazole, terbinafine) for recalcitrant or extensive tinea pedis. Terbinafine, 250 mg daily for two to four weeks, and itraconazole, 200 mg twice a day, for one week, are often effective dosing strategies. If used longer than one week, liver function should be monitored.

Another important consideration when using systemic azoles is drug interactions. Itraconazole is a P-450 inhibitor. It affects the metabolism of many drugs including digoxin, 3-hydroxy-3-methylglutaryl coenzyme A reductase inhibitors (statins) and non-sedating antihistamines.

If, however, the nail sample is positive for fungal infection, tinea unguium should be treated with a systemic antifungal (*i.e.,* terbinafine, 250 mg, daily, for three months) provided there are no contraindications to systemic antifungals (*i.e.,* possible drug interactions, liver and renal disease).

In addition to antifungal therapy, other measures are important in controlling and preventing tinea pedis:

- Good hygiene should be encouraged and patients should change clothing and towels frequently and launder with hot water.
- Patients should be encouraged to wash their feet daily and thoroughly dry their feet after bathing (a hairdryer should be used to dry interdigital areas).
- Patients should also discard old shoes that might aggravate tinea pedis. Footwear should be fitted properly and be non-occlusive.

In addition to these measures, consider using a daily antifungal powder. Finally, if a patient suffers from hyperhidrosis, they should be encouraged to wear cotton socks that absorb moisture (wool and synthetic fibers should be avoided).

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