

Women's Health Literature Review



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Health Service Region 1

Breast masses in the adolescent



"The most important take-home message for breast masses in the adoles-

cent are that breast masses are common in that population. Breast masses in an adolescent are almost universally benign. Fibrocystic changes are prevalent, as are fibroadenomas. Fibrocystic changes require no surgical intervention, but persistent fibroadenomas—especially 'giant' fibroadenomas greater than 5cm may require excision. They can generally be diagnosed without imaging, and are typically

rubbery, ovoid, mobile, and nontender. Needle biopsy is not warranted in adolescents for this condition. Any growth of a lesion over time is an indication for ultrasonography and a surgical referral. Mammography in the adolescent is unreliable. A less common and more worrisome breast mass in the adolescent is the phyllodes tumor, previously called cystosarcoma phyllodes. While these stroma tumors are usually benign, *they may be malignant in the adolescent population*. They tend to occur more frequently among black women. Diagnostic imaging may be unable to distinguish the tumor from a fibroadenoma. These tumors are larger than

fibroadenomas, and often appear to be fixed to the surrounding tissue. The two cannot be differentiated by imaging, so a needle biopsy is indicated. About 20% of phyllodes tumors recur locally, and 14% to 15% of these metastasize. Girls who have undergone chest irradiation have more than an 80-fold higher risk of breast cancer, and should be screened carefully using adult algorithms. The risk is also higher among children aged 10-16 years at the time of radiation treatment, with approximately 40% of patients developing breast cancer within 20 years. (*The Female Patient*, April 2009)

One must be healthy to be executed

"The irony of many countries including the U.S., is that a person must be determined to be healthy before execution. It is considered inhumane to kill a sick person, such as a person with a cold. In Islamic countries, they can not execute a virgin for any crime, so they rape a virgin before they execute her. (*Women's Health Care*, Vol 6, No.9 Annual Issue 2007)

Multiple sclerosis— advances made in last 10-15 years

"Multiple sclerosis remains a serious neurologic disease for which there is still no curative treatment. However, over the past ten to fifteen years significant advances have been made in altering the course of the disease in most patients. It is now possible to assist patients with MS to lead a full and active life. The mean onset for MS is between 20-40 years, with women affected more frequently than men at a ratio of 2-3: 1. Since the disease primarily affects young adults, economic impact is severe. The cause of MS remains unknown, although viral etiology is suspected. Genetic predisposition and environmental factors also seem to be involved in initiating an

abnormal immune response, which then leads to inflammation in the central nervous system. Inflammation then causes demyelination of nerve axons, and can progress to axonal loss and loss of the neurons as well. Epidemiologic studies have shown a higher rate of disease in northern latitudes, and migration studies have suggested that home residence in childhood (younger than 15 years old) is a major factor determining risk of disease. Clinically, the disease presents with acute symptoms, followed by a period of remission or relative stability. The classic presentation is that of neurologic symptoms and signs that are scattered in time and space, affecting various parts of the nervous system. At present, clinical history and examination remain the basic tools in the diagnosis. MRI scans of the brain and spinal cord, as well as spinal fluid studies, all provide

data from which the diagnosis is made. With new treatment to prevent the progression of the disease, making the diagnosis sooner rather than later has led to changes in the diagnosis criteria. In the past, the diagnosis was typically made after a second clinical attack; in 2005, the diagnosis was revised so that a single clinical attack was sufficient for a diagnosis. There has not been in the past, nor is there now, one single test which will establish the diagnosis of MS. Because of the development of disease modifying therapies, it is important to begin treatment as soon as the diagnosis has been established. (*Panhandle Health*, Winter 2007)



Elective repeat c-sections before 39 completed weeks is risky business

"In a previous review within the last year, an article was included regarding the risk of elective C-sections performed in the absence of labor, particularly at 37 and 38 weeks. This additional article goes on to say *even a few days* prior to 39 completed weeks carries a greater risk of complications. A recent study's most alarming observation was that in deliveries that occurred just during the last 3 days before 39 completed weeks (i.e., 38 weeks and 4 days to 38 weeks and 6 days), the risk of complications remained elevated compared

to deliveries at 39 completed weeks. To put in absolute terms: at 38 weeks, 1.9% of babies had respiratory distress syndrome; 3.9% had transient tachypnea; and over 8% were admitted to the ICU." (*Contemporary OBGYN*, March 2009)



Injectable contraceptives cause bone loss

"After 2 years, adolescent girls using Depo as their form of contraception had lower bone mineral density (BMD) determinations at the spine and femoral neck than girls using oral contraceptives or neither form of birth control, according to the results of an observational, prospective cohort study. Researchers included 433 postmenarcheal girls between the ages of 12 and 18 years of age. Measurements were taken over more than 2 year's time. The outcome was most of the decrease in BMD seen with DMPA occurred during the first year of use and then slowed during the second year. *The take-home and important message of the study was that while there was a decrease in bone density found, it never approached a range even consistent with osteopenia.* Calcium supplementation is standard practice." (*Contemporary OB/GYN*, March 2009)



Nurse 'farewell' ceremonies

"While this article explains a specific program for a nonprofit tax-exempt program named 'Angels of Allegheny' out of Pennsylvania, the conceptual plans of this program have merit. The catalyst of the program was one nurse going to the funeral of another nurse, and nothing was said other than she was a nurse. So a plan for a program was put into place. That plan was, with the notification of the death of a nurse in their designated area and a request from the family, a group of six honorary nurse pallbearers come to the funeral or burial site dressed in traditional white uniforms, nursing caps, and black capes. One carries the traditional Florence Nightingale lantern. During the service, the first pall bearer explains the significance of the flag

bearing the red cross that is placed on the casket; the second pallbearer reads the nurse's poem; the third reads a nurse's prayer; the fourth shares work-related memories. At the burial site, after the completion of the traditional service, the Nightingale lamp is lit in the nurse's honor. The fifth pallbearer then calls out the nurse's name and requests that he or she report to duty. When there is no response, the nurse's name and license number are called out twice more with the same response. After the third call, the nurse's license number is announced as being officially retired, and the flame is extinguished. The start up cost of the program merely required the purchase of the uniforms, caps, capes, flags, and lanterns." (*RN*, April 2009) Editor's note: just the description of this ceremony brings tears to my eyes.



Statistics on patient adherence that will blow your mind

"While providers tend to classify patients as falling into either a compliant or non-compliant category, studies suggest that patients vary over time in the amount of effort they put toward following their treatment regimens, but almost 100% have difficulty with regimens that are taken long term. For example, adherence studies of conditions in which one would assume compliance is high, there was only 61% adherence for seizure medication, 51% adherence for osteoporosis, and only 37% adherence for gout. Perhaps more surprising are the low adherence rates for

anti-rejection drugs in transplant patients. According to one study, more than a third of patients did not consistently adhere to their medication regimen, even when fully aware of the potential life-threatening consequences. In the case of asthma, in which the consequences for non-adherence can be dire, one study found that 85-90% of prescriptions were not refilled in the first year of treatment. Unfortunately, adults are no better at following treatment guidelines for their children than they are for themselves. For example, 65% of adults do not enforce the use of car restraints by their children, and 28% do not follow recommended vaccination sched-

ules. In the first month following diagnosis for new-onset epilepsy in children, 20% did not adhere to the prescribed medication regimen. Similarly, compliance with refilling prescriptions for children's asthma medication is low. Some good news among this bad news: when written instructions are provided in addition to verbal instruction, patients are more likely to follow treatment instructions. If instructions are too general, the patient is left to infer what is needed, and compliance goes down. Be as specific as possible. Adherence can be improved if it is a frequent topic of conversation, as they know it is going to be asked about. Perfection is unrealistic." (*The Clinical Advisor*, October 2008)

Reminder– indications for emergency contraceptive use and a few tidbits of information as well

"Emergency contraceptive use should be considered by users of primary contraceptives if sexual intercourse has occurred in any of the following settings:

Oral contraceptives: two or more pills in a row missed in a single cycle, or when initiation of a new cycle is delayed by two or more days;

Patch: A patch is left in place for > 7 days, a patch is not worn for >24 hours (during the active dosing weeks), or initiation of a new patch cycle is delayed by 1 day or longer;

Ring: A ring is in place for > 4 weeks, a ring slips out of the vagina for equal to or greater than 3 continuous hours, or the insertion of a new ring is delayed by 1 day or longer; or

Depo-Provera: Injection is delayed by equal

to or greater than 14 days.

Note: Emergency Contraception (oral route) is not considered an abortifacient because this method is not effective once implantation has begun, and because it does not have an effect on the developing fetus if a person is already pregnant.

More tidbits of information: While Plan B is OTC for persons 18 and over, it is kept behind the counter and one must have proof of age to make the purchase. Any member of the pharmacy team may sell Plan B to eligible consumers *as long as* a pharmacist is on duty. Retail establishments that have store hours that differ from those of the pharmacy may not sell plan B when the pharmacy is closed. In nine states (not Texas) a person can present without a prescription (whether less than 17 or for insurance pur-

poses) and a pharmacist can initiate the prescription. This service is not available for men, because they are not the persons using the medication. Adolescents presenting for a prescription for EC should be told that if the cost will prohibit them from having access to this product, they should go to a federally funded family planning clinic that provides the product at no cost. As with all oral medications, it is wise to ask the client if they have problems swallowing pills; if so, they will need some tips to facilitate the process, such as placing the pill at the back of the tongue and then drinking a carbonated drink from a bottle to wash it down. While Plan B tablets can not be crushed, they can be administered with food, such as putting it in applesauce or pudding." (*Women's Health: A Practical Journal for Nurse Practitioners*, Vol 6. No 9, Annual Issue 2007)

Breast cancer diagnosed while pregnant

"Although pregnancy may conceal breast cancer in younger women and lead to a delay in diagnosis, evaluation, and treatment, pregnancy-associated breast cancers are not associated with a worse outcome compared to non-pregnancy associated breast cancers. A retrospective study at M.D. Anderson reviewed breast cancer-related outcomes among women with pregnancy and non-pregnancy associated malignancies. A total of 652 women ages 35 years or younger were included, with a median follow-up of 114 months. Compared to women with non-

pregnancy-associated breast cancers, women with pregnancy-associated tumors did not significantly differ in their 10-year-rates of local/regional recurrence (23.4% for women with pregnancy-associated tumors vs. 19.2% for women with non-pregnancy-associated tumors), nor distant metastases (45.1% vs. 38.9%). *In pregnant women, any treatment intervention taken during pregnancy improved the trend for overall survival, compared with delaying treatment until after delivery.*" (*Contemporary OB/GYN*, March 2009)



Pre-malignant changes in the vulva appear to be increasing among young women

"Pre-malignant and malignant squamous cell carcinoma of the vulva are differentiated only by its penetration into the epithelial basement membrane. Both are extremely uncommon, but there are 3,400 new cases each year with an estimated 890 deaths in 2008. Vulvar intraepithelial neoplasia (VIN) is a pre-malignant squamous-cell dysplastic lesion of the vulva. The malignant potential of VIN has been estimated to be as low as 9% and as high as

87%. High grade VIN is routinely treated due to the potential for malignant transformation. Symptoms include itching, burning and chronic vulvar discomfort. The majority of cases of VIN can be attributed to infection with the HPV subtypes 16 and 18. Historically, surgical treatment of VIN was successful, but was sometimes associated with disfigurement and psychosexual stress and still did not address the underlying HPV infection that causes most cases.

Besides surgery, treatment has also included laser or photodynamic therapy. Although it is not FDA approved for this indication, positive long-term clinical outcomes for VIN have been reported with topical self-applied Imiquimod. The use of Imiquimod has also been associated with relief of pruritis and pain, both immediate and long term." (*The Female Patient*, April



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Interesting Tidbits

Cookbooks may be partly to blame for Americans' expanding waistlines- "Cornell University researchers analyzed changes in 18 recipes that appeared in all seven editions of the classic *Joy of Cooking*, which was published roughly every 10 years from 1936 to 2006. Recipes ranged from macaroni and cheese and beef stroganoff to brownies and apple pie. The results found that in the past 70 years, the average calories in a recipe increased by 44%, and the average calories per serving rose by 63%, because of a jump in calorie-rich ingredients and larger suggested portion size." (*AJN*, May 2009)

An elevated resting heart rate predicts myocardial infarction or coronary death in women 50 years of age and older- "A study examined 135 postmenopausal women who were participants in the Women's Health Initiative. Women with a history of CVD or those taking medication that affected heart rate were excluded. Researchers found that women with a resting heart rate of more than 76 beats per minute had a 68% higher risk of a coronary event. An elevated heart rate was not found to increase the risk for stroke." (*AJN*, May 2009)

Carbon monoxide poisoning can mimic the flu- "The vague symptoms of CO poisoning can make one not feel well and dismiss their symptoms as coming down with the cold or flu; thus, the critical connection to a CO leak may not be made soon enough. Symptoms of CO poisoning can be headache, dizziness, disorientation, and irritability. Body aches, fever and swollen lymph nodes are associated with the flu or a cold, and not associated to a CO leak. Other tips that might lead one down the path to connect their symptoms to CO poisoning would be multiple people getting sick at the same time, and the appearance of the indoor pets as ill, drowsy, and lethargic." (*RN*, April 2009)

Ensuring a steady gaze- "If a patient is having difficulty looking ahead at a distant object while you check the pupils, have him/her lie down and stare at the ceiling. This decreases the effort involved in keeping the neck and shoulder muscles steady." (*Clinical Pearl, Clinical Advisor*, October 2008)

One sitting of binge drinking in early pregnancy can cause harm



ADAM

"A study conducted by the National Institute of Environmental Health Sciences found that pregnant women who consumed 5 or

more alcoholic drinks per sitting were twice as likely as non-drinkers to have babies with cleft lip with or without cleft palate, or cleft palate alone. Women who drank that amount of alcohol on 3 or more occasions during the first trimester were three times as likely to have an infant born with oral clefts." (*The Female Patient*, November 2008)

New theories on endometriosis

"Traditional theories of what causes endometriosis include retrograde menstruation and coelomic metaplasia. One theory has to do with endometrial pieces getting out of the fallopian tube by going the wrong way and implanting elsewhere, the other has to do with undifferentiated cells in the peritoneal cavity that differentiate into endometrium cells. Current research is focusing on a connection to stem cells. Supporting this theory is evidence from women who have undergone bone marrow transplants. The endometrium in these women contains a substantial number of donor-derived endometrial cells. Stem cells derived from bone marrow reside in the endometrium, and it is believed retrograde menstruation of these stem cells can cause endometrial implants. It is further known that bonemarrow-derived stem cells can also populate established endometriotic implants. Even in hysterectomized mice, endometriosis lesions contain bone marrow-derived endometrial cells, thereby eliminating the possible explanation that this exemplifies blood or lymphatic dissemination. Bone marrow-derived stem cells add to the persistence and progression of endometriosis. The stem cell theory also explains the more unusual cases of endometriosis located at distant sites such as the lungs or brain. The current belief is that there is more than one source of endometriosis - that retrograde menstruation can lead to peritoneal endometriosis, while metaplasia can cause endometriomas, and that ectopic differentiation of stem cells can cause the progression of endometriosis lesions and explain those at distant sites. Additionally, it has been recently learned that endometriosis also induces changes in the endometrium that inhibit implantation. This helps to explain continued infertility even after complete surgical resection of endometriosis." (*Contemporary OB/Gyn*, April 2009)