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Hello and welcome to the APAOG podcast. I'm the show's host and creator Morgan Bechtel, and today we'll be learning about the difference between 2 very similar sounding breast conditions fibrocystic breasts and fibroadenomas will review the pathophysiology, presentation, and diagnosis of these conditions, as well as discuss various treatment options and therapies available. So gather round as we discussed the ins and outs of the breast doppelgangers, fibrocystic breasts, and fibroadenomas.

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Despite their nearly identical sounding names, these are in fact two different conditions of the breast.

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The term fibrocystic breast is more of a descriptor of the breast tissue, while fibroadenoma refers to a specific benign mass that's independent of the surrounding tissue. Let's start our discussion with fibrocystic breasts. As stated above, the condition is not really a disease, process or disorder. What it refers to is the thickening and rope like.

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Consistency of the breast tissue and think of the beads of that rope being these small fluid filled cysts. Now this is a very common condition with roughly 50% of all women of reproductive age experiencing these changes at some point in life.

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Now you may be asking yourself what causes these changes and like some things in medicine and actually very little is known about the specific, you know, pathophysiology of it, but it's thought that hormones, specifically estrogen, play a major role. Fibrocystic breasts often present with this generalized breast pain or tenderness.

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That tends to flare anytime in the cycle around ovulation to the beginning of menses, and for a review of the menstrual cycle, make sure to check out our earlier episode.

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Anyway, back to it. The fibrotic cysts were again the beads of that rope can themselves become enlarged and painful during this time. Now this condition is often most common in women who are menstruating, so think ages 20 to 50 years old.

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It is rather uncommon for women who are postmenopausal to experience these breast changes.

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So how exactly do we diagnose fibrocystic changes in the breast? Well, for the most part, it's a diagnosis of exclusion, one made through history and physical exam findings.



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So for example, if a patient comes into your office complaining of tender breasts, your differential for this is fairly wide and ranges in seriousness, think breast Abscess, Cellulitis, breast cancer, etcetera.

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So you ask questions in order to narrow down this list. When does this happen? Is it consistent cyclical? Does it seem to be related to the menstrual cycle in any way? How long has this been happening? Think acute pain is more likely to be an acute issue, like an infection versus a gradual pain is more likely to be a chronic issue.

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Like a fibroadenoma or fibrocystic change.

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How have these breasts themselves changed? Are they red warm to the touch? Is there a palpable mass? Is there any nipple discharge? All of these questions help rule in and out the diagnoses and narrow down the possibilities of what may be causing the patient's breast pain.

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If there are concerning findings on exam for infectious or possibly malignant ideology, think redness, palpable mass, or if there is significant family history of breast cancer, then imaging studies would be the next step in differentiating the cause.

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The recommendations for imaging are based on several elements, including age and risk factors, with women under the age of 30 and without significant risk factors, generally getting breast ultrasounds and everyone else getting mammograms. It's important to note that extremely dense breasts decrease the sensitivity of mammograms.

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From roughly 88% to around 62%, which is why as of late, mammograms have started to be combined with tests like ultrasounds and MRIs.

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The most important point to stress about fibrocystic breast changes is that these are benign changes and they do not increase the patient's risk of breast cancer. So you've determined your patient's breast pain is coming from fibrocystic breast changes. How do you treat them well, as with all medical practice, if the symptoms are mild, we start with more conservative measures like lifestyle changes.

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Some people find that wearing a supportive bra and limiting caffeine intake can really help improve symptoms. Now, there's even been some studies that show that vitamin E and evening primrose oil can also help with symptoms.



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Of course pain relievers like Motrin and ibuprofen, as well as heating pads, can also provide some temporary relief of the pain if the pain is severe and starts impacting the patient's daily life, then more invasive treatment methods need to be taken. This includes needle aspiration, which is when a small needle is used to remove the fluid from the cyst as well as surgical excision.

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I want to mention an important test taking note here for all of those PA students, nursing students, Med students, etcetera.

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It's important to know that in fibrocystic breasts, a needle aspiration will reveal a straw like fluid versus a needle aspiration and a fibroadenoma will reveal a solid glandular and fibrous tissue.

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Now that we've covered fibrocystic breast changes, let's discuss the other side of the coin. The breast friend, if you will fibroadenomas like I mentioned at the beginning, a fibroadenoma is an individual solid mass that's found in the breast tissue. Soft and firm, non tender and ranges in size from less than a centimeter to over 10 centimeters in size.

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But usually on average from 2 to 3 centimeters, or roughly the size of quarter fibroadenomas are the most common benign breast mass in patients. Again, most commonly seen in women of reproductive years.

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Like with Fibrocystic breast changes, fibroadenomas are affected by the hormonal fluctuations that occur during the menstrual cycle with these changes, causing the mass to either grow or shrink in size.

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While it's most common to have just a single fibroadenoma, around 25% of cases are shown to have multiple fibroadenomas at once. Now the diagnosis of fibroadenomas is similar to fibrocystic breast changes, and that history and physical exam findings are a major component. However, given that a fibroadenoma is an individual breast mass.

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Imaging is often utilized to rule out possible underlying malignancy, think about patients, risk factors, family history, things like that.

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As stated above, a breast ultrasound is considered the gold standard for patients under the age of 30 and without significant risk factors for breast cancer. Now one important thing to note is that in some patients with persistent early onset meaning and greater than 4 bilateral fibroadenomas genetic testing is recommended.



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As a genetic mutation of the PTNE gene, which can cause the symptoms is associated with an increased risk of breast cancer.

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If the fibroadenoma is physically bothersome or emotionally distressing to the patient, there are several ways in which we can proceed with surgical management. The less invasive options include percutaneous excision in which an ultrasound is used to guide the needle into the tissue to remove the fibroadenoma. This is a safe and effective option for smaller masses.

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Another option if removal of the mass is not preferred, would be something like cryoablation.

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In both of these procedures, samples of the breast mass are taken and checked histologically to confirm that the diagnosis is in fact a fibroadenoma versus malignancy. If the fibroadenoma is larger than 4 centimeters or it's rapidly growing in size, then open excisional biopsy is recommended to ensure that all of the mass is removed.

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The downside with this method is that it's more invasive, requires longer healing time, and the risk of infection and scarring is greater.

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To summarize, while Fibrocystic breast changes and fibroadenomas sound like test answers that are meant to trip you up, they are in fact 2 separate breast conditions. Fibrocystic breasts are not a disease or disorder, but rather a series of changes that impact the breast tissue, causing it to become dense and filled with ropes of fluid filled cysts.

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Fibroadenomas, on the other hand, refer to individual solid nodules that can be found within the breast tissue. Fibrocystic breast changes is the most common breast condition and usually causes pain and discomfort, while fiber adenomas are usually painless.

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So as long as there is no concerning factors for breast cancer, imaging is not required for diagnosis. However, given the nature of fibroadenomas, a painless breast nodule imaging with biopsy is usually done.

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If a patient is asymptomatic, then no treatment is needed. If symptoms are bothersome, then treatment ranges from less invasive options like vitamin E, primrose oil and NSAIDs to more invasive options like percutaneous needle aspiration or surgical excision.

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Based on the severity of the patients symptoms, of course now overall it is important to remember that these are benign conditions of the breast and they do not increase a patient's risk for breast cancer.