

TRANSCRIPT

Crohn's & Colitis Foundation of America

Update on Colorectal Cancer: Knowledge Is Prevention

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Update on Colorectal Cancer: Knowledge Is Prevention

Introduction

Good morning or good afternoon, everyone. I'd like to introduce myself. My name is Fernando Velayos. I'm a gastroenterologist and an IBD doctor at the University of California in San Francisco. I'd like to thank the **Crohn's & Colitis Foundation of America** for asking me to be part of this program today, titled ***Update on Colorectal Cancer: Knowledge Is Prevention***. More importantly, I'd like to welcome everyone: the patients, the caregivers, and the healthcare providers who are joining us today in what is an innovative and, I think, also rather very interactive way of recognizing **Colorectal Cancer Awareness Month** and how it relates to IBD, which is via today's teleconference. I'd like to start with the learning objectives of today...

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Learning Objectives

...which is first to identify the symptoms of colorectal cancer. Second is to compare the characteristics of colorectal cancer in people with ulcerative colitis or Crohn's disease with the characteristics in the general population. And that is something that you'll see weaved into today's talk because you may hear about colorectal cancer, and it's important to distinguish that between colorectal cancer and IBD. Third is to list the risk factors for colorectal cancer in people with ulcerative colitis or Crohn's disease. Fourth is to describe an effective surveillance program for colorectal cancer in people with ulcerative colitis or Crohn's. And then, finally, more importantly, to explain ways of teaching people with ulcerative colitis or Crohn's how to reduce their risk for colorectal cancer.

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U. S. Statistics on Colorectal Cancer

I'd like to start off with some statistics and this is from the United States Census Bureau, where colorectal cancer is known to be the third most common cancer in the United States. It was estimated that in 2006 there would be approximately 107,000 new cases of colon cancer and 42,000 new cases of rectal cancer, and that 55,000 people would die from colorectal cancer.

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Risk Factors for Colorectal Cancer

With respect to the risk factors for [colorectal] cancer, we know that colorectal cancer is most common in adults over the age of 50, with more than 90% of cancers occurring in this age group. Also, people who have a family history are at an increased risk of developing colorectal cancer.

People with a history of colorectal polyps or a personal history of chronic ulcerative colitis or Crohn's are also at higher risk. There's a well-established link between UC and colorectal cancer. Recent studies also have shown that people with Crohn's are at an increased risk of cancer.

I'd like to now focus on what is known about the risk factors for colorectal cancer in patients with inflammatory bowel disease.

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Risk Factors in People with UC or CD

Chronic inflammation is a risk factor for colorectal cancer in people with ulcerative colitis or Crohn's and is associated with extensive disease, meaning involving the entire colon, and disease that has lasted for more than 8 to 10 years.

At this point I'd like to stress that inflammation is emerging as one of the most important risk factors. As a result, when we talk about inflammation being a risk factor, I want to highlight some of the preventive strategies I will talk about at the end of the talk, which is trying to reduce that inflammation by controlling the disease.

For people with primary sclerosing cholangitis (liver disease) we know that that's also a risk factor for cancer. In PSC, the bile ducts become inflamed and scarred. As the scarring increases, the ducts become blocked. As a result, bile builds up in the liver and damages the cell. A person can have the disease for years before the symptoms develop.

The most important thing for PSC patients to know is that even though they may not have sensed that they have disease for many years, they may have had inflammation for several years and not have known about it.

Finally, the third risk factor is a family history of colorectal cancer. We also know that a family history of colorectal cancer, independent of a personal history of UC or Crohn's, is another risk factor. The risk for colorectal cancer becomes greater than that in the general population after 8 to 10 years from disease onset. Findings from several studies suggest that a positive family history is a risk factor for [colorectal] cancer in people with UC.

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What is Colorectal Cancer?

To make sure that we're all speaking the same language, I'd like to take a moment to step back and discuss in plain language what is the colon, what is colon cancer, and then third, how colon cancer develops.

Together the colon and the rectum make up the large bowel, also called the large intestine. The large intestine is the last segment of the digestive system, meaning the esophagus, stomach, and small intestine are the first three sections. The first several feet of the large intestine is the *colon*, and the last 6 inches is called the *rectum*.

The colon and the rectum are made up of many kinds of cells. Normally cells divide in an orderly way and are produced only when the body needs them. If cells continue to divide when new cells

are not necessary, a mass of extra tissue called a *tumor* forms. The tumor may either be *benign*, meaning not a cancer, or *malignant*, meaning a cancer. When a tumor spreads into the intestinal wall or to other parts of the body, it is called *malignant*, or a cancer.

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What is Colorectal Cancer? (Cont'd)

Colorectal cancer may include cancer of the colon, the rectum, and the anus. Cancer may spread from the lining of the colon into adjacent tissue. The tumor may spread, or *metastasize*, to other parts of the body such as lymph nodes, liver, lungs, bones, and brain.

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How Colorectal Cancer Develops

Most colorectal cancers first develop as a colorectal *polyp*. These are benign growths of the lining of the colon or rectum. This polyp has a potential to develop into cancer. More than 80% of colorectal cancers arise from cancerous polyps.

In contrast, people with ulcerative colitis or Crohn's commonly present with another precancerous lesion known as *dysplasia*, or abnormal cell growth, due to chronic inflammation of the colon from the GI tract.

And, again, here I'd like to emphasize that both of these are essentially made of the same tissue, the adenoma and the dysplasia. The main difference is that dysplasia is often what we refer to as precancerous lesions in patients with ulcerative colitis and Crohn's.

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How Colorectal Cancer Develops (Cont'd)

Usually polyps are not malignant and produce no symptoms. As I said, these are called *adenomas*, indicating the type of cell of the gland that they come from. In the general population colorectal cancer develops slowly over a period of years. Typically it takes more than 10 years for an adenoma to develop into cancer.

Again, to contrast what happens in the general population [compared] to patients with ulcerative colitis or Crohn's, in UC or Crohn's cancer may develop more quickly or in people with a strong family history of colon cancer. We think that inflammation is the cause in accelerating this process.

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UC or CD and Colorectal Cancer

Now let's focus on ulcerative colitis and Crohn's in colorectal cancer, moving from what happens in the general population to UC and Crohn's.

People with UC or Crohn's are at higher risk for colorectal cancer than others in the general population, even if the disease is in remission. Now these statistics can be frightening, but keep in mind that most people with ulcerative colitis or Crohn's will not develop colorectal cancer. In addition, in the early stages colorectal cancer can be treated successfully.

Finally, we know that in different countries the rates of cancer are different, meaning in some countries they're much higher than in the general population, while in others they are similar to the background population, signifying that although patients with UC or Crohn's may have a higher risk of cancer, that this risk can be modified in some way. So, clearly, for these reasons, regular screenings and early detection are truly critical.

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Development of Colorectal Cancer in the General Population Compared with People with UC or CD

In the general population the development of colon cancer is preceded by polyps. Compared with that in the general population, in people with UC or Crohn's, cancer can develop from the flat mucous membranes, thereby requiring more intensive and more frequent colonoscopies. Compared with the general population, in people with UC and Crohn's, colorectal cancer is often multiple and uniformly distributed throughout the colon and often occurs in younger people.

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Detection Through Proactive Screening

I'd like to review that so far we've discussed the risk factors for colon cancer. We stepped back and defined common terms such as what is the colon and how colorectal cancer develops. Now we can focus on the symptoms of colon cancer, how to look for it, and how to prevent it.

It's important to note that because symptoms are not always present, regular screenings and early detection of polyps are very important for people at average risk and those at higher risk of colon cancer, such as people with ulcerative colitis and Crohn's. Symptoms that do occur depend on the location of the cancer in the GI tract. What's really important to emphasize is that when the cancer is symptomatic, typically is at an advanced stage. When we do colonoscopies we are not looking for cancer, we're looking for the asymptomatic precursors of cancer, where something can be done about them in a much more effective way.

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Symptoms of Colorectal Cancer in the General Population

Screening and going for colonoscopies are *very* important because in the early stages of cancer there may be no noticeable symptoms, even though the changes in the colon may have been occurring for a very long time.

When they do occur, and again, these are symptoms of colon cancer in the general population, symptoms of colon cancer may include a change in bowel habits that persists for more than 4 days, diarrhea or constipation, or decreased stool thickness. There can be blood in the stool or on the toilet issue; a feeling that a bowel has not completely emptied after a bowel movement; persistent abdominal discomfort such as cramps, gas pains, or a feeling of fullness; and even a feeling as if there is a lump in the rectum.

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Symptoms of Colorectal Cancer in People with UC or CD

Clearly patients with ulcerative colitis and Crohn's know that some of these symptoms may overlap with the symptoms of the disease itself. The signs and symptoms of cancer can mimic the typical

symptoms of UC or Crohn's in the general population; therefore, it can be difficult to recognize in people with UC or Crohn's, who may already have many of these symptoms regularly as a result of their disease.

Because people with UC and Crohn's already may have the symptoms of colon cancer, again, regular screening and surveillance are particularly important.

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Importance of Screening and Surveillance

We just said that symptoms are unreliable and it's not a good idea to wait to have symptoms in order to say that at that moment you want to have a colonoscopy.

Now I'd like to look at ways of preventing cancer and these lesions altogether.

This slide talks about terms. Again, your doctor may be using terms such as screening and surveillance, often used with respect to colonoscopy. I will define these terms with respect to colon cancer. First, *screening* is testing performed before symptoms of cancer develop. Screening is extremely important. Its goals are to prevent cancer by identifying and removing precancerous polyps and to identify cancerous lesions at an early stage when they can be removed and the disease treated successfully.

Surveillance or a surveillance exam encompasses the subsequent examinations, again, usually colonoscopy, performed after the initial screening examination.

It's estimated that 50% of deaths from colon cancer could be prevented if people aged 50 years or older were screened routinely. Again, this is for the general population.

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Menu of Screening and Surveillance Tests

In the general population there is a very large menu of screening and surveillance tests, but not all of these are appropriate for inflammatory bowel disease patients.

The fecal *occult*, or hidden, blood test is recommended yearly in people at average risk for colorectal cancer. This simple, painless, and fast test determines whether hidden blood is present in the stool. When blood is present, a colonoscopy is recommended. Remember that inflammatory bowel disease, ulcerative colitis, and Crohn's are often characterized by blood in the stool. And so therefore, again, this is not an effective test.

A sigmoidoscopy views only the last portion of the colon and may not adequately detect the presence of cancer in areas beyond the reach of the scope. A sigmoidoscopy in the general population is recommended every 5 years in patients who are at average risk for colon cancer. But, again, remember we said that inflammation was an important risk factor and inflammation can occur throughout the colon in inflammatory bowel disease. Polyps and precancerous lesions can occur throughout the colon, and so, again, a sigmoidoscopy is *not* an effective test to screen or survey for colorectal cancer.

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Menu of Screening and Surveillance Tests (Cont'd)

Continuing with our menu, colonoscopy in the general population is often performed every 10 years. Colonoscopy views the entire colon and rectum and is the preferred screening method for many people, particularly those at increased risk of colorectal cancer. The recommended frequency of a colonoscopy in people who are at average risk is every 10 years. During the colonoscopy, polyps can be removed (this is called a *polypectomy*) or a biopsy (which is analysis of a tissue specimen) can also be performed. And although it is the preferred method for screening and surveillance in inflammatory bowel disease, every 10 years is too long between tests. Again, we said that cancer can be accelerated in inflammatory bowel disease, so this test is recommended more frequently than every 10 years.

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Screening with Colonoscopy

What is a colonoscopy? A *colonoscopy* is a procedure during which the rectum and the large intestine are examined. Colonoscopy is the gold standard for detection of colon cancer. The *colonoscope* consists of a long, flexible, lighted tube that transmits a video image. During the colonoscopy, patients are awake but mildly sedated. The test itself takes approximately 15 minutes and the discomfort truly is minimal, even though patients are often scared about having a colonoscopy – it's the butt, pardon the expression, of a lot of jokes – it truly is a simple and routine test and really is part of standard care for preventing colon cancer.

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Screening with Colonoscopy (Cont'd)

The doctor who performs the colonoscopy does several things: looks for inflamed tissues, ulcers, and abnormal growths such as polyps. Polyps can be removed (*polypectomy*) using small tools passed through the scope.

A biopsy specimen can also be obtained during the colonoscopy. A *biopsy* is a procedure in which a very small sample of tissue is taken and then analyzed under a microscope. Both the colonoscopy and the biopsy are used by the physician to determine whether polyps or other indications of cancer are present.

In many cases, a colonoscopy truly allows for accurate diagnosis and treatment of abnormalities in the colon and, more importantly, without the need for major surgery.

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Screening with Colonoscopy (Cont'd)

Several scientific organizations recommend regular screening beginning at age 50 and in people without GI symptoms or risk factors for cancer. Screening is the key to preventing cancer. We've heard this many times. But it is absolutely true. The frequency of screening is really based on the risk factors and whether or not you have polyps on colonoscopy. If the initial screening test is negative, subsequent examinations are generally repeated every 5 to 10 years.

In people at increased risk of developing colorectal cancer, and this is really a group distinct from IBD patients, for them screening is even more aggressive and begins even earlier, either at age 40 or

10 years before the age at which the youngest member in the family was diagnosed, whichever is earlier, and should be performed more frequently than for those at average risk, typically every 3 to 5 years.

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Screening and Surveillance in UC or CD: Colonoscopy

As I've emphasized many times, and as I'm sure as patients and healthcare providers who are with us today know, screening and surveillance in UC and Crohn's truly is different. That's really important for everyone to realize. Colonoscopy is the method of screening and surveillance in people with UC or Crohn's, and having a regular annual colonoscopy is the most effective way to detect colorectal cancer. Shortly I will talk about what is done during that examination.

In people with UC or Crohn's, that initial screening colonoscopy – remember we talked about definitions of screening and surveillance, where screening is the first procedure done – and a screening colonoscopy should take place once the disease has lasted approximately 8 to 10 years. And then these people should be followed routinely thereafter with subsequent or *surveillance* colonoscopy every 1 to 2 years thereafter.

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Subsequent Examinations

Now in UC or Crohn's, after that initial colonoscopy, which again we talked about being every 8 to 10 years after the onset of symptoms, we do another colonoscopy every 1 to 2 years. And we take regularly scheduled biopsies. Now even though your doctor says come back every 1 to 2 years, if there are any changes in symptoms or medication use, those really should be discussed with the gastroenterologist, because that person may decide to perform an examination at a shorter interval.

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Dysplasia

Let me describe what happens during the colonoscopy and what the gastroenterologist is looking for. For example, when I perform a colonoscopy I'm examining the inside lining of the colon with the colonoscope. I'm sampling bumps – remember we talked about the bumps being the polyps and, more importantly, that not all polyps are true precancerous lesions. I'm looking for polyps and little bumps and I'm sampling them, just as I do in patients who don't have inflammatory bowel disease.

But in a colonoscopy for inflammatory bowel disease, I do extra things. I take multiple biopsies throughout the colon in areas without the bumps. Because I'm looking for dysplasia. *Dysplasia* is abnormal cell growth, not cancer. *Histologically*, meaning looking at it under the microscope, it is the exact same thing as a bump; however, finding dysplasia in inflammatory bowel disease has a different meaning than in the general population.

In the general population that bump often can be removed, and that dysplasia or precancerous lesion is completely gone. The risk of cancer is reduced. In inflammatory bowel disease that precancerous lesion or dysplasia has a different indication. As a result, surgery can be recommended. And, like in a regular colonoscopy, simple removal of the polyp is all that is required.

Once I've performed the colonoscopy I send the biopsies to the pathologist, and the pathologist looks for dysplasia. Again, we said that dysplasia is abnormal cell growth. It's not the same thing as cancer, but what it does indicate – it's a red flag. It's a trend toward the development of cancer. Dysplasia is seen more often in people with Crohn's and UC, and just to re-emphasize that this can be the first sign of a potential cancer.

When you review these results with the doctor, they may use words such as indefinite, low-grade, or high-grade dysplasia, really depending on the appearance under the microscope. And depending on what that dysplasia looks like is what the next recommendation will be.

So, for example, if indefinite dysplasia is found, meaning that it's not normal, but it's not quite dysplasia, usually a repeat colonoscopy is recommended. If there is low-grade dysplasia, meaning early changes of dysplasia, some doctors do recommend surgery. However, there are other doctors who recommend following this. This is an area of significant controversy, and so this is something that you really should discuss with your doctor.

For high-grade dysplasia, there is a concern that there's a risk of this turning into cancer or actually having cancer already present, and so surgery is often recommended in order to prevent future cancer from developing. Studies have shown that finding cancer once high-grade dysplasia is diagnosed can be as high as 67%.

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Differences Between Colonoscopy for UC or CD and for Surveillance

So, what I have reviewed – it sounds very, very scary, very, very concerning, but really the point of this talk is to put this information, what is on the Internet, what people are reading, what people are hearing from their doctors, in the proper perspective. And to emphasize that these are things that can be prevented and we do have ways of looking for these lesions and preventing cancer. And really that is with the colonoscope.

I often have patients tell me, "Oh, I've already had a colonoscopy." But it's important to realize that not every colonoscopy that is performed is really to look for these precancerous lesions or dysplasia. And what I show you here in this table is the difference between a colonoscopy done for symptoms and a colonoscopy done for detection of dysplasia or cancer.

To summarize this slide, when a colonoscopy is performed, it is usually done for symptoms. It's usually done when the disease is active, it's done to evaluate symptoms, confirm a flare-up and exclude infection. Only a few biopsy specimens are taken.

Here on the slide in the column on the right, you see that a surveillance colonoscopy is performed under different circumstances. It's performed when the disease is quiet, not when it's active. Many biopsies are taken, usually up to 30 or 40 biopsies during a procedure, with the main reason being that the dysplasia can be flat and we're really trying to sample the entire colon to look for these precancerous lesions.

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Colorectal Cancer is Treatable When Found Early!

As I said, to put things in proper perspective, we hope to never find dysplasia, we hope to never find cancer. But if dysplasia is found, something can be done about it to reduce the risk of cancer. Even if cancer is found, it's important to realize that cancer is treatable when found early. The 5-year survival rate for people with colorectal cancer diagnosed at an early stage before it has spread is greater than 90%.

Those who have colon cancer usually are treated by a team of experts. The treatment depends on several factors, including the size, the location, and the extent of the tumor. Surgery to remove polyps or the tumor and the surrounding tissue is really the most common type of treatment.

Chemotherapy and radiation treatment are also used for cancer. These treatments can be used when cancer has spread beyond the colon or when cancer is difficult to reach. Chemotherapy and radiation therapy may also be combined with surgery.

Again, it's important to discuss definitions. *Chemotherapy* uses drugs to kill cancer cells, control tumor growth, and also to relieve symptoms. *Radiation therapy* uses X-rays to kill cancer cells, shrink tumors, or destroy remaining cancer cells in the body after surgery.

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Prevention of Colorectal Cancer

In the last part of our talk, I'd like to summarize where we've been and talk about positive things that we can do to reduce the risk of cancer. We started off by talking about what the risk factors are for colon cancer. We discussed the common language, defining what is the colon, what is colon cancer and how it develops, what are the symptoms of colon cancer, how its symptoms really are not useful in UC or Crohn's, and it's important to have a colonoscopy performed not for symptoms, but when the disease is quiet. And I discussed what happens during that procedure and what we do with those test results.

Now I want to talk about what I think is a very positive message as well, how we can prevent cancer. And to put it in the proper perspective. And, again, to know that because a patient has ulcerative colitis or Crohn's, or a family member does, or a patient that you're caring for, doesn't mean that person will develop cancer. There are a lot of statistics that there's increased risk of cancer in UC and Crohn's, and it's important to respect and to acknowledge that. That is true. UC and Crohn's are associated with a high risk of getting cancer. But colon cancer is one of the most preventable and treatable types of cancer.

Because people who have polyps or cancer do not always have symptoms, early detection and regular screenings are absolutely vital to prevent colon cancer, especially in people who have UC and Crohn's. And you've heard me repeating that over and over again because that is really, I think, the most important message of this presentation today.

The survival rate for colon cancer is 93% when treated at the earliest stages. But more importantly, we're not interested in finding cancer and treating at the earliest stages. We're interested in potentially finding dysplasia, which is before cancer develops. And more importantly, I want to talk

about in the next part of this talk, ways of potentially preventing even dysplasia from occurring altogether.

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Prevention of Colorectal Cancer (Cont'd)

Let's now talk about preventing cancer altogether and what we can do, what is known, and what is still uncertain. With respect to preventing cancer and food, we do know that healthy lifestyle habits can lower the risk of cancer, even in ulcerative colitis and Crohn's. The average person should maintain a normal weight, exercise regularly and eat a healthy diet that is high in fiber, low in fat, and low in red meat. These recommendations are for the general population as well.

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Healthy Dietary Habits

Patients will often ask me what a healthy habit means, specifically related to UC or Crohn's. Dietary choices and food tolerances obviously vary from person to person. In UC and Crohn's many factors can affect food tolerances just because of the underlying inflammatory bowel disease, the current disease state, and what portion of the GI tract is affected. For example, sometimes patients with Crohn's may experience more lactose intolerance, and there are certain foods that certain people do well with and other people don't. Really there's not any one trigger food or any one food that is right for everyone.

It's important to recognize that individualized diet therapy is relevant in IBD. And it considers all of the above factors and usually focuses on *hydration*, so drinking enough fluid is very critical in inflammatory bowel disease.

Electrolyte balance. By this I mean equilibrium between the amounts of the electrolytes like calcium, sodium, potassium, is really important for normal health and functioning. Ensuring the adequate intake of nutrients, replacing deficient nutrients if needed, and modifying food to manage GI symptoms.

Remember that in UC and Crohn's, particularly during episodes of disease activity, patients can lose weight, they're not eating right, and even just the inflammation and the leakiness of the intestine itself can make for loss of very important nutrients. So it's really important for the doctor and for patients to be aware of this and battle against it.

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Reducing Your Risk

In this slide I would like to discuss ways of reducing the risk. So far what I've emphasized is the importance of screening. Again, I want to emphasize that this is the only official recommendation so far, and it's really important to know that screening, surveillance, colonoscopy are really the only recognized and the most important things that any patient can do to reduce the risk of colorectal cancer.

But what I'd like to do now is share some promising, though not proven, but very promising, ways of reducing the risk of even developing dysplasia and cancer altogether. Some of this relates to specific nutrients and herbal supplements. Others involve reducing the risk of inflammation.

Remember we talked at the very beginning of this program about inflammation being a very important risk factor for developing cancer. So it makes sense that controlling inflammatory bowel disease, controlling that inflammation with medications, should reduce the overall risk of developing cancer.

So as I said, the medications and supplements that you already may be taking can help prevent cancer. And even though these medications are not necessarily labeled for use as chemopreventive agents, they have been shown to protect the body against cancer. In some persons these medications can cause serious side effects, so you should be monitored by your physician regularly. It's important to remember that using these medications and supplements – again, I can't emphasize this enough – should not take the place of regular surveillance colonoscopy.

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Reducing Your Risk in the General Population

So aspirin and nonsteroidal anti-inflammatory drugs have been the most studied agents as chemoprevention for colon cancer. A protective effect has been shown through a variety of mechanisms, but with varying doses and durations of use.

Aspirin and nonsteroidals are anti-inflammatory agents used in the general population. But they are not tolerated by people with UC or Crohn's. However, people with UC or Crohn's can benefit from similar drugs, such as 5-aminosalicylics [5-ASA] or mesalamine, which will be discussed shortly.

I want to emphasize besides aspirin and nonsteroidals, potentially flaring Crohn's, even though this is an area of controversy, in flaring Crohn's and ulcerative colitis, it's important to know that these medications can also cause serious side effects such as GI bleeding and ulcers. So it's important that you contact your healthcare provider if you begin to experience any abdominal pain or note blood in the stool. Some patients with IBD do need to take these medications, for example, for arthritis symptoms. And even if you don't experience these side effects, it's recommended that you be monitored regularly by your physician.

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Reducing Your Risk: Supplements that May Help (General Population and in UC or CD)

Case-controlled and cohort studies have evaluated folic acid, and they've shown an inverse relationship between dietary folate intake and colon cancer: low folate intake has been regularly associated with an increased risk of colon cancer, whereas high folate has been proven to be beneficial.

Folate is one of these agents where the data are suggestive but not definitive. But truly it is a low-risk supplement and when taken in the proper doses. I recommend for my patients who are undergoing surveillance colonoscopy, who have 8 to 10 years of disease, that they regularly take folic acid.

Now another agent that is often in the news with colon cancer is calcium. A lot of studies have shown that elevated calcium is also inversely related to colon cancer, meaning that people who take calcium have a lower risk of colon cancer. However, imprecise recording of calcium intake and

other dietary modifications are often limitations of these studies. There have been two recently published studies that support the use of calcium supplements to reduce the risk of recurrent polyps in the general population. The use of calcium supplements in reducing the risk of cancer in IBD is not definitive, and so therefore, I'm not recommending, and typically most physicians do not recommend, routine calcium use to reduce the risk of cancer in IBD. In contrast, most physicians do recommend supplementation with folic acid to reduce the risk of colon cancer in inflammatory bowel disease.

Once again, I do want to emphasize, one concern is always when we hear – I feel the same way in the news, that you hear something and you say oh, this is good and maybe taking more of it will be even better, and really that is not the approach. Most importantly, you need to speak with your physician before starting any herbal supplement and that folic acid and calcium must be taken in appropriate doses to avoid any adverse reactions or side effects. These dosages depend on gender, weight, age, extent of bone loss for calcium, and various other factors. It's really important that you discuss taking either folic acid or calcium supplementation, or any supplements or herbal supplements that you may take, with your healthcare provider before taking them.

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Reducing Your Risk: Other Medications that May Help (For UC and CD)

Recently in the news there's been a lot of – and I'm often asked as well for other medications, particularly those that are used to treat inflammatory bowel disease, such as 5-aminosalicylics and ursodeoxycholic acid – do they really reduce the risk of cancer in inflammatory bowel disease.

With respect to 5-ASA agents, otherwise known as mesalamine, case-controlled studies do suggest that they're effective in reducing the risk of developing colorectal cancer in ulcerative colitis. One study suggests that it may be effective in Crohn's disease involving the colon as well. The precise dose and duration for these medications are unclear, and it's a matter of ongoing research.

The thought is that these medications may be effective because we know that they are effective for reducing inflammation and the symptoms of inflammatory bowel disease, and a secondary side effect, almost an unexpected benefit, is reducing the risk of colon cancer.

In people with UC who have liver disease, in other words, primary sclerosing cholangitis, ursodeoxycholic acid has been shown now in two studies to reduce the risk of dysplasia or cancer. Again, these studies are very small, but very promising, and this is also an area of active investigation.

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Treatment Adherence is Critical

Medications are important because even people with inactive UC or Crohn's are still at risk for developing cancer. With this in mind, we talked about medications that you take to reduce inflammation and to control the disease being important. It's important here to talk about terms that your doctor may use or you may have heard. Two are treatment adherence and treatment compliance. *Treatment adherence* means taking medication over the long term. *Treatment*

compliance means taking medications as directed by your doctor. And these are really two interrelated terms.

Both adherence and compliance with UC or Crohn's could reduce the risk of cancer by maximizing the chemoprotective benefits of these medications, therefore preventing both the disease and disease progression. Treatment adherence and compliance also are important primarily for relieving symptoms and keeping the disease under control.

Again, I'll emphasize that this is a promising strategy, but not proven, but it's something that patients should be following anyway, just to keep their disease under control.

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Factors Affecting Adherence

Patients, family members, and caregivers, and even in seeing IBD patients myself, clearly adherence is a very, very difficult task. It's very difficult to take medications regularly. Particularly for young patients, it is very difficult because they are in school. People have work. Sometimes these medications require multiple dosing. Sometimes those are in the middle of the day. These are very challenging problems. But at the same time, it is important to recognize them and try to work with your doctor in overcoming this potential barrier.

In UC and Crohn's extent, duration, and severity of disease are known to affect adherence to treatment. Also people who have more flare-ups are more likely to take their medication, but when the disease is relatively under control, patients may be likely to *not* take the medication.

But the fact is that there still is underlying inflammation. It just may not be clinically apparent. And so there's still the potential of damage occurring, kind of in the background, and also there's obviously a risk of flaring over time if you don't take your medication. So it's important to really understand that staying on medication is a very important way of controlling the disease, controlling inflammation, and that this may have a secondary benefit in reducing cancer risk.

Again, to emphasize, it's important to tell your doctor if you're not able to take your medications on a regular basis, for whatever reason, so you can work with him or her to see if there's a way of getting around this problem. Because people who are informed about their treatment may also be more likely to adhere to therapy.

There's a need for clear instruction from healthcare providers and educational materials to increase the knowledge about the importance of adequate maintenance therapy and the risks associated with nonadherence. And that is one of the other goals, to bring that to the forefront in this program, in that adherence is a major concern and investigators are increasingly trying to address this problem.

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Other Factors Affecting Adherence

Other factors affect treatment adherence. Treatment factors such as adverse reactions to medications or having to take many medications are important aspects of nonadherence. The effectiveness and convenience of the treatment regimen also have roles in treatment adherence.

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To Increase Treatment Adherence

Emotional stress and social and emotional problems also affect adherence. People with mild disease who are not likely to have good social and emotional support are less likely to adhere to treatment. To increase treatment adherence, the treatment regimen should be simplified and people should find support for their emotional and social needs.

When I see and counsel patients with inflammatory bowel disease, I'm often asked, "How can I reduce my risk?" And really here is where I say colonoscopy is the most important thing, and in a large part that is my job. In other words, patients do have to agree to show up every 1 to 2 years, but it's my job during the colonoscopy to do everything I can to look for the polyps, to take plenty of biopsies.

But on a day-to-day basis the difficult thing is really what patients have to do and that's taking the medication every day, keeping the disease in remission, keeping the inflammation down, so that a secondary benefit can be the reduction of cancer risk.

Slide 37

Summary and Conclusions

So in summary, I'd like to first thank everyone for participating in this inaugural and what I think is a very innovative teleconference sponsored by the **Crohn's & Colitis Foundation of America** in recognition of **Colorectal Cancer Awareness Month**.

The message of this program is truly one of information and really a very positive one, in that colon cancer is preventable and treatable when found early. More importantly, we do regular surveillance exams to look for precancer lesions and are really trying to find ways of preventing this process from occurring altogether.

Therefore it's important first to recognize your risks, to reduce your risks when possible, to be adherent to medications, and really importantly, to follow the recommended surveillance program. Because I think the most important message for this program is that screening and surveillance are the keys to prevention.

Thank you very much.

Frederick:

Thank you, Dr. Velayos, for that highly informative and very thoughtful presentation. We're now going to begin the question-and-answer session of our program.

Question & Answer Session

Operator:

We'll go first to Jerry from New Jersey.

Jerry:

Good afternoon. Can the doctor comment on the DNA-based stool tests that are available for screening of colorectal cancer?

Dr. Velayos:

Thank you for your question, Jerry. At this point, DNA-based stool tests have been evaluated; however, these studies have not been specifically conducted in patients with inflammatory bowel disease. They have not been tested in a rigorous manner in inflammatory bowel disease. Part of the reason is that many genetic changes occur as a result of the inflammation that – at this point – we do not know how to interpret. But these are definitely areas of research and of interest. Ultimately, we would like to find more noninvasive ways of being able to screen patients, so that we don't have to essentially do what is recommended now, which is frequent, meaning every 1 to 2 years, colonoscopy.

Frederick:

And we can now take the next question.

Operator:

We'll go next to Frank from Arizona.

Frank:

Hi, Doctor. Thank you for doing this. I have a question about the 5-ASAs you were mentioning. Does that include drugs like Colazal[®] or Asacol[®]?

Dr. Velayos:

Thank you, Frank. Yes. The 5-ASA agents do include Colazal and Asacol. As a matter of fact, I'll go ahead and tell you what the 5-ASA agents are. Those would include agents such as sulfasalazine, with a brand name of Azulfidine[®]. They would include balsalazide, the brand name is Colazal. They would include the mesalamine products; the ones on the market now would be Pentasa[®], now coming on would be Lialda[®], as well as Asacol, which has been used for a very long period of time. 5-ASAs would also include medications like olsalazine or Dipentum[®].

Frederick:

Thank you. And we can take the next question.

Operator:

We'll go to Kay from North Carolina.

Kay:

Also, thank you very much for doing this. It has been wonderful. I am an ulcerative colitis patient and have not had a colonoscopy in 5 years and have had quite a few flare-ups. I haven't been as good as I should be about taking my medicine. Mainly it has been a financial situation. I think I have that rectified, though, now. My question is, is there – I have had complications, joint pain, pretty severe, and kidney stones. Is there anything else I can do other than taking my medicines regularly, and I took notes about the healthy lifestyle also, to prevent these side effects?

Dr. Velayos:

May I ask you to clarify what you mean by the side effects?

Kay:

The joint pain and the kidney stones. My doctor indicated that those were side effects of my ulcerative colitis. And I, at the present time, am undergoing some treatment for enlarged lymph nodes in my lower abdomen.

Dr. Velayos:

Thank you, Kay. It sounds like you are definitely going through a lot. I will mention briefly in terms of the side effects, for example, the stones and the joint pain, that those are very difficult symptoms to treat and to deal with. So from that point, since we have a limited amount of time in terms of trying to address that more thoroughly – I will simply say that with respect to the fact that you've been unable to get a colonoscopy for 5 years and the medications have been difficult, anything that you *can* do to be healthy will be important. Again, I just emphasize for cancer prevention, and I know certain economic realities do set in, that colonoscopy is a very important tool for preventing cancer.

Frederick:

Thank you, Dr. Velayos, and we're ready for the next question.

Operator:

We'll go next to Hannah from Georgia.

Hannah:

I'd like to know about the use of cod liver oil to decrease inflammation. How do you feel about that?

Dr. Velayos:

Thank you, Hannah. Cod liver oil falls under what is used increasingly in patients with inflammatory bowel disease as alternative therapy. Sometimes patients are actually using them as primary therapies. I would say with respect to cod liver oil there are some preliminary experimental data in terms of fish oil reducing inflammation and colon cancer risk. The data in general are not great. That being said, I will say that the connection between cod liver oil with respect to cancer risk has not been looked at. With respect to cod liver oil and inflammation, my general approach is that as long as you are also pursuing a standard treatment regimen, I think that alternative therapies can be beneficial.

Frederick:

And we can take the next question.

Operator:

We'll go next to Sarah from Massachusetts.

Sarah:

I read in the presentation about – a line on slide 33 that discussed even inactive UC or CD increases the risk of colorectal cancer. Wonder if you could follow-up a little bit more. I was active when I

was a little bit younger, quite active, and it's been in remission for awhile. I need to know if I'm someone who should be considered in the clear, or if these guidelines for colonoscopies and such should continue to apply?

Dr. Velayos:

Thank you for your question, Sarah. That is such a wonderful and such a great question. In the presentation I did mention that even if you're in remission you are at risk for colon cancer. This is a little bit of a subtle point in a way. We know that ongoing inflammation is an important risk factor for cancer. But what happens is that usually when the disease starts to quiet down, patients will often tend to forget about it and not get checked (in other words, not get a colonoscopy). So in someone with quiescent disease, the risk of developing cancer is not so much that you have an ongoing inflammatory process, but that you are getting older and that you've had this exposure to this inflammation in the past.

So to summarize, my comment was meant to say that even if the inflammation is better, you may be at risk for cancer because of inflammation in the past or simply the aging process increases the risk and you may not get a colonoscopy as frequently. Therefore you should not ignore the fact that there is still a risk. The point is that feeling well does not mean that the risk of cancer is zero.

At this time the guidelines endorsed by many societies are that there are 8 to 10 years of inflammation of the colon, that a colonoscopy should be performed for screening and then every 1 to 2 years thereafter for surveillance. How active the disease is will dictate whether the interval between colonoscopies is 1 year or 2 years. That's a great question.

Frederick:

Thank you, Dr. Velayos. We can take the next question.

Operator:

We'll go to Holly from Maryland.

Holly:

I'm wondering for people who have pancolitis where it affects their whole colon, is it true that it's basically a 100% chance that if they get old enough they're going to have the cancer?

Dr. Velayos:

Thank you, Holly. I'm glad that you brought up this question because it is something that I come across often. The question is, does pancolitis for long enough equal cancer. The answer is no. There is a lot of fear and concern about that point. The elevated risk of cancer with ulcerative colitis and Crohn's in the colon is something that should be respected, but not feared.

Up until the 1980s, surgeons often recommended surgery for patients with ulcerative colitis after 10 years of disease. There was a perception that pancolitis for a long enough time undoubtedly turned into cancer. The thinking was that because we can't tell who's going to get cancer and who is not, everyone should have their colon removed.

Since that time we've become much more adept at using colonoscopy, at taking biopsies, and at understanding the biology of IBD-related colorectal cancer, even though we do still have some way to go. And so now the thought is that by doing colonoscopy, you can detect precancerous lesions called *dysplasia*, and reserve surgery only for those patients who have dysplasia and are at high risk of developing cancer. Otherwise, everyone else, as long as they get routine testing and those colonoscopies show no evidence of dysplasia, does not need to have surgery.

Frederick:

Thank you. Now we can take the next question.

Operator:

We'll go to Shoshanna from Michigan.

Shoshanna:

Thank you so much for taking my call. My daughter is 11 ½ years old with Crohn's disease and she was diagnosed at the age of 7. My question pertains to follow-up as you indicated for managing risk with colonoscopies. How does this apply to children?

Dr. Velayos:

Can you remind me, her Crohn's involved what part?

Shoshanna:

Her Crohn's is in the lower third, the iliac.

Dr. Velayos:

At this point I don't think that there is a need, at her age right now, to do surveillance. As children get a little bit older, and have 8 to 10 years of disease, it is, at that point, something worth pursuing. Pediatric gastroenterologists are very expert at managing the concern that every parent has about doing any procedure on their child. At this point, we can only say that the risk of colorectal cancer increases with age and it increases after 8 to 10 years of disease. So it's probably the older group of children with longer disease that is at higher risk.

Frederick:

Thank you. And now we can take the next question.

Operator:

We'll go to Sharon from Illinois.

Sharon:

Thank you very much for taking my call. My question is the association of probiotics, for example, Align™ or Healthy Trinity® as far as good bacteria. I hear a lot about it and I'm curious as to how effective it is for these patients.

Dr. Velayos:

With respect to cancer prevention, certain probiotics do reduce the inflammatory cytokines, such as IL10 and others, and that could potentially have a beneficial effect, but there are no studies to

justify their routine use as a cancer prevention strategy. That being said, the best data with probiotics are in pouchitis. If somebody is taking probiotics, I don't discourage it. At the same time if they're not getting better on probiotics, I think it's not necessary to continue them. Just the same way that if they were prescribed a medication that was not working, we would prescribe something different.

Frederick:

Thank you, Dr. Velayos. We can move on to the next question. I know we have a lot in queue.

Operator:

We'll go next to Sandra out of Wisconsin.

Sandra:

I wonder if you have heard anything at all about the use of porcine parasites to reduce inflammation? Actually it stimulates inflammation, which then dies down. Instead of immunosuppressants.

Dr. Velayos:

Yes. This is an interesting area and, again, for all of these questions, they tend to have two implications. One is for inflammation and the general treatment of inflammatory bowel disease and the other I will relate back to the issue of colorectal cancer and prevention.

Now the parasites. Some rather interesting data suggesting that the use of parasites, specifically *Trichuris suis*, can reduce inflammation and improve disease activity in ulcerative colitis. This data relates to the hygiene hypothesis, suggesting that people who live in countries where potential parasitic exposures early in life are common are less likely to develop inflammatory bowel disease because of these immunomodulatory effects of these parasites. That being said, this type of therapy is experimental and not available in the United States and probably will not be available in the near future. So at this time we can't recommend it as treatment, but it does highlight some very interesting mechanistic issues with inflammatory bowel disease and possible therapies in the future.

Frederick:

Thank you. And we can now move on to our next question.

Operator:

We'll go next to Tim from California.

Tim:

Thank you for taking my call. On the treatment with folic acid, can you quantify what is high intake?

Dr. Velayos:

Thanks, Tim. On the topic of high intake. It is very common with supplements like folic acid and calcium that if a little is good, more is better. I don't believe in hyperalimentering with folic acid or calcium. What I do recommend is taking a multivitamin. Most multivitamins will have sufficient

folic acid particularly if there's normal vegetable and other sources of folic acid in the diet. I usually give about a milligram of folic acid, which is appropriate.

In many of the studies that were performed, one milligram of folic acid tended to be more protective against the development of colorectal cancer than the lower dose, which was .4 milligrams. So typically I'm supplementing anyone who's undergoing surveillance colonoscopy with a milligram of folic acid.

Frederick:

Thank you. We can now move on to the next question.

Operator:

We'll go next to Linda and her husband in Arizona.

Linda's husband:

My wife Linda has been diagnosed with Crohn's. She's lived with it for 38 years. The only medication that we have found that can control her diarrhea, and I think we've tried just about everything, is Xifaxan[®]. Xifaxan, according to our insurance company, is not an approved medication for treatment with Crohn's, so therefore they refuse to cover it. Do you know if there's any drug company or the manufacturer of Xifaxan that's actually doing anything to receive certification of it?

Dr. Velayos:

There are some preliminary studies that I am aware of, trying to look at Xifaxan for Crohn's disease. And so this would be more of a general therapy of antibiotics in Crohn's disease, which appear to have some modest benefit, but probably not as effective as some of the other medications. That being said, there is an individualized approach, and it sounds like you've been through a lot of treatments and this has been the one that has worked.

Frederick:

We can now take our next question.

Operator:

We'll go next to Paul from Massachusetts.

Paul:

Yes, Dr. Velayos, during your presentation, I don't know if you touched upon surgery and whether surgery such as an anastomosis with an ileum and cecum removed, do these types of surgeries and/or other surgeries increase the chance of cancer?

Dr. Velayos:

Can you clarify, you mean removing part of the colon instead of the entire colon?

Paul:

Yes, for instance, in the case of Crohn's colitis, the ileum and cecum being removed and an anastomosis. Do these types of surgeries, are there any data on this, whether this increases the chances of colorectal cancer?

Dr. Velayos:

That's an interesting question. First, surgery does not increase the risk of colorectal cancer. If anything, it decreases the risk. That being said, it is important to clarify that inflammation of the colon increases the risk of cancer. For that case in particular, if the ileum and the cecum were involved, the rest of the colon were completely normal, the surgery essentially connected healthy small intestine to a healthy colon, and the rest of the colon remained free of Crohn's, then the risk would not be elevated.

The last point is that in some types of ileal-anal anastomoses a little bit of rectum is left, and because that area is still at risk of inflammation, there is a small chance of developing rectal cancer, even though most of the colon and the rectum have been removed. For patients who have a little bit of rectum remaining, typically I recommend surveillance of just that rectal cuff with biopsies to make sure that there's no cancer or precancerous changes. Very nice question.

Frederick:

Yes, thank you for that great question. And we can now take the next question.

Operator:

Go to Edward out of New York.

Edward:

Yes, thank you very much. I was just curious. Would you consider Remicade[®] as one of those treatments that would also reduce risk?

Dr. Velayos:

That's a great question and one that everyone is asking about. We have information on the risk of cancer using 5-ASAs, but what about the other medications such as azathioprine, 6-MP [6-mercaptopurine], and infliximab. For azathioprine and 6-MP, those data are rather mixed. For infliximab, there's no information at all. The thought, though, is that reduction of inflammation is likely to be a protective factor. But how much any individual medication such as Remicade or any of the other agents reduce that risk, at this point is just speculation.

Frederick:

Thank you, Dr. Velayos. And we can take our next question.

Operator:

Doug out of Florida.

Doug:

Thank you. My question relates to a question that was just asked, which is regarding Remicade and 6-MP. From what I've read, it seems that there is some speculation as to whether or not the side

effects from those fairly strong and toxic drugs in and of themselves might be cancer-causing. I'm wondering what those risks are.

Dr. Velayos:

Great. Thanks Doug. I will expand on the answer I gave before, that with respect to azathioprine and 6-MP, there have been three studies in ulcerative colitis that have been published and one study found a protective benefit. One of the studies that I did find a slight trend toward harm. Another study found that it made no difference one way or the other with respect to colorectal cancer. And as I said, with infliximab there's absolutely no information.

There is concern that these medications may produce other types of cancer, for example, lymphoma with azathioprine and 6-mercaptopurine. Even though this is a colorectal cancer prevention talk, that is something I get asked often in the setting of using these medications. At this point the thought is that with respect to colorectal cancer, we're not really sure. It probably doesn't have an effect one way or the other, but we're not 100% sure. The second is with other cancers such as lymphoma, there are studies that have been done in areas where sick patients are seen and that seem to show a higher risk compared to the general population. But remember that the risk in general tends to be small, so you may see a two or three times risk, but a two to three times risk compared to a small risk is still a pretty small risk. And so based on that, these medications are used because the thought is that the risk-benefit ratio is in favor of a benefit – it's healthier to not have active Crohn's or IBD compared to a small chance of these other cancers. That being said, I don't minimize the risk of lymphoma in any way. It is important to have a very frank discussion on this risk. Great question.

Frederick:

Thank you. These are such great questions. Can we take the next one?

Operator:

Yes, Susan from Michigan.

Susan:

I've been reading a lot of information on Jordan Rubin and how he cured his Crohn's disease by diet, avoiding all the additives in food, just going to a natural diet, so there's no chemical things irritating the colon. And I wonder your thoughts on that.

Dr. Velayos:

Again, I will answer these in two parts, addressing the role in IBD in general and then so far as how it relates to cancer prevention. For cancer prevention, there is no information at all. In IBD, as in non-IBD conditions like IBS, we find that modifying the diet by eating healthier, eating more naturally, reducing the amount of carbohydrates, reducing the complexity of food, makes abdominal symptoms better. And so whether a natural diet is effective simply because it's not upsetting the stomach as much or because it is changing the disease itself and has inherent anti-inflammatory properties is still a matter of debate.

There are certain types of diets, particularly in children, which do seem to be effective, and so nutritional therapy is often used in children. We don't use it as often in adults, but it's probably

more likely that it's more difficult for adults to be as compliant or as adherent to this type of diet compared to children.

Susan:

I was wondering about osteoporosis when you have Crohn's disease. My son has a lower bone density than I do, and I'm menopausal. We're giving him calcium. We're doing the typical things, but do you do something different if you have osteoporosis because you have Crohn's, other than regular people with osteoporosis without Crohn's?

Dr. Velayos:

Now particularly if there's a concern that there's a lower T score, if bone density scores have been done, I would have a talk with a general doctor as well as with an IBD doctor. There are sometimes other hormonal things that can predispose to osteoporosis in young people, including low testosterone. And then if not, using things such as bisphosphonates can also be helpful, although one must be careful in children. These are questions that I would ask both the primary care doctor and the IBD doctor who care for your son.

Frederick:

Thank you. And can we have our next question, please?

Operator:

Christine from Washington.

Christine:

My question is related to the last question. With regard to teenagers who've been diagnosed with Crohn's or ulcerative colitis. Typically to prevent cancer we advise a very high fiber diet, plenty of fresh fruits and vegetables, whole grains. And if I understood correctly I just heard that decreasing carbohydrates and decreased complexity of foods are recommended. And I know certainly during flare-ups you're supposed to decrease fiber and residue. How do we guide teenagers in how to eat for the rest of their lives?

Dr. Velayos:

That's a great question. It is a little bit of a mixed message, isn't it? But the fact is that things like fiber do improve certain aspects such as cancer risk, having regular bowel movements, etc. But clearly there are some times when diet can actually make someone *feel* worse. And so if I wasn't clear on the last question, I just want to be clear that those types of diets may make someone feel better, but it's not clear that that necessarily reduces inflammation or reduces the risk of cancer.

Remember that the intestine, that the GI tract has only a few and very limited ways of expressing that it's unhappy and, whether that's irritable bowel or inflammatory bowel disease or some type of viral illness, it can only describe pain, constipation, diarrhea, and sometimes bleeding. Sometimes the same treatment, meaning not stressing the GI tract like with food, can actually make it feel better. But that doesn't mean necessarily that the inflammatory bowel disease is better per se. And things like fiber, fruits and vegetables are recommended so long as it is not a patient's trigger food. Meaning that if it truly causes a lot of discomfort or distress, you should *not* have it. Important question.

Frederick:

Thank you. And we can now take our next question.

Operator:

We'll take that from Maria out of Indiana.

Maria:

I know that body and mind are often connected and I'm just wondering – I have a son who's 8 who has Crohn's and was diagnosed with Crohn's and ulcerative colitis and now we're thinking it's Crohn's again. I know he's very anxious and it's hard to tell, the chicken or the egg. Have you had any information on placing people on antidepressants or anti-anxiety medications that may help keep the anxieties in check and may even help with those symptoms?

Dr. Velayos:

Thank you so much, Maria. I will just simply highlight that, just as you said, there's an extremely strong mind-body connection. Now when we get into the issue of medications, prescribing antidepressants, and trying to cope with chronic illness I would involve an expert such as a psychiatrist in making that decision. This is something for which an IBD doctor or a primary care doctor should probably ask assistance.

Frederick:

Thank you. And we have time for another question.

Operator:

We'll go to Sharon out of Illinois.

Sharon:

This is Sharon, and I have had cancer of the small intestine and I'm wondering if there is a chance that possibly it is more likely to recur, and if there's something, a test that maybe can detect cancer in the small intestine?

Dr. Velayos:

Sharon, I'm sorry, is this a general question? This is kind of a more general question for the risk associated with cancer in the small bowel, is that correct?

Sharon:

Correct. I have had that. Eleven years ago I had cancer, and I had six chemo treatments.

Dr. Velayos:

I see. I will say that cancer of the small intestine, we haven't focused on this, but it is also likely related to inflammation. It's seen in Crohn's disease of the small bowel, but not in ulcerative colitis. At this point there are no great tests for detecting this early. One problem with small bowel cancer in Crohn's is that there are no great tests.

In terms of possibilities, every so often certain doctors may decide to either do a small bowel X-ray or CT scan, but there's not the same type of endoscopic test that we have for colorectal cancer. That being said, small bowel cancer, fortunately for patients who have Crohn's disease, is extremely, extremely uncommon. The risk of colorectal cancer is much higher compared to small bowel cancer. But for someone who's had small bowel cancer as you had, and I know the concern is what can I do to follow this over time, there are no great tests. But small bowel X-ray or possibly a CT scan are ways of looking into this and following it.

Sharon:

Thank you very much. And I do have Crohn's and I seem to be managing it pretty well right now.

Dr. Velayos:

Great. That is wonderful news.

Sharon:

Thank you, Doctor.

Dr. Velayos:

I'm glad we're able to take so many questions.

Frederick:

We're allowed to take one more question, and then we're going to end here. So please queue up the last question.

Operator:

Final question is from Nadia out of Texas.

Nadia:

My question is, as I understand, you want to keep the inflammation down. So if you're on Colazal, nine tablets a day, and then your inflammation goes down and you don't have symptoms, is it recommended to go on a reduced dose?

Dr. Velayos:

Nadia, that is the perfect, perfect question to end the program today. Because that is the important point of a lot of what the presentation is about today. That maintaining or staying on a medication long-term will reduce the flare-ups, reduce inflammation over time, and also the thought is that it will reduce the risk of cancer. So in the studies that I've looked at and the studies that we've performed, it's those patients who used 5-ASA or mesalamine products over the long term who appeared to derive the reduced colorectal cancer benefit.

Frederick:

Thank you, Dr. Velayos. And thank you very much for that last question.

We still have several people waiting in queue to ask questions, so you can certainly email our Information Resource Center and an information specialist will be able to assist you and get back to you.

Thank you, again, to Dr. Velayos for your time and your expertise. We truly appreciate your being here with us today and all of the work that you've done on behalf of patients with ulcerative colitis and Crohn's disease.

Again, a real special thanks to Procter & Gamble Pharmaceuticals for making today's program possible.

Most importantly, on behalf of the Crohn's & Colitis Foundation of America, thanks to all of you who participated in today's teleconference. We hope you enjoyed the program. Please remember to fill out and return your evaluation form. Your feedback is what will drive how we move forward with our education program. And please fill them out and send them back to us.

For more information about today's program or for disease-specific information, again, you can contact our new Information Resource Center or visit our website. And they're both at www.ccfa.org.

Thank you again for sharing this time with us. And this concludes today's program. Good-bye.

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