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Vol. XXXXXII, (52nd year), Edition # 113 Since Year 2000, Oct.. 2018

P.O. Box 127, Indian Rocks Beach, FL., 33785-0127

THE CASE OF THE DIAPPEARING CANCERS

1892, New York City, a Startling Discovery.

Back in the 1890s a New York City surgeon named William Coley made a startling observation. He was searching medical records for something that would help him understand sarcoma, a bone cancer that had recently killed a young patient of his, and came upon the case of a house painter with a sarcoma in his neck that kept reappearing despite multiple surgeries. After the fourth unsuccessful operation, the house painter developed a severe streptococcus infection that doctors thought would kill him for sure. Not only did he survive the infection, but when he recovered the sarcoma had virtually disappeared.

Coley dug deeper and found a few other cases of remission from cancer after a streptococcus infection. He concluded—incorrectly, it turned out—that the infection had killed the tumor. He went around promoting this idea, giving about 1,000 cancer patients streptococcus infections that made them seriously ill but from which, if they recovered, they sometimes emerged cancer-free. He eventually developed an elixir, Coley's Toxins, which was widely used in the early 20th century but soon fell out of favor as radiation and then chemotherapy began to have some success in treating cancer.

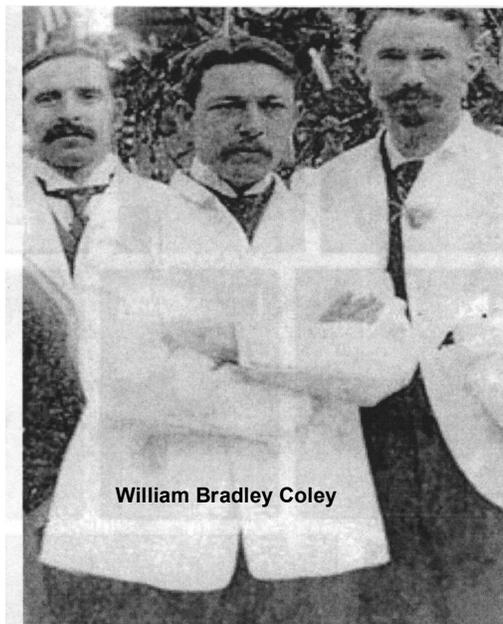
Then in the 1970s, scientists looked back at Coley's research and realized it was not the infection that had killed the house painter's tumor, it was the immune system itself stimulated by the bacterial infection.

In a healthy body, T-cells activate their weaponry whenever the immune system detects something different or foreign. This might be a virus, a bacteria, another kind of disease-causing agent, a transplanted organ—or even a stray cancer cell. The body continuously generates mutated cells, some of which have the potential to turn cancerous, but current thinking is that the immune system destroys them before they can take hold.

Once scientists recognized the cancer fighting potential of the immune system, they began to look for ways to kick it into gear, hoping for a treatment that was less pernicious than chemotherapy, which often uses poisons so toxic the cure may be worse than the disease. This immune based approach looked good on paper and in lab animals, and showed flashes of promise in people.

Details: William Bradley Coley (Jan. 16, 1862-April 16, 1936) is today recognized as the *Father of Immunotherapy*. He received his bachelor's degree from Yale and his medical degree from Harvard. He began his practice of medicine at the New York Hospital where he became interested in sarcomas. He came in contact with a German immigrant with an inoperable tumor in the neck. To the astonishment of the doctors at the time, this patient's round cell sarcoma seemingly vanished after being diagnosed with erysipelas, now known as *Streptococcus pyogenes*. In 1853, Sir James Paget alluded to the fact that he himself had reason to believe that an *infection may cause tumor regression*. As Coley continued his investigation, he found 47 cases that suggested that infections may be linked to cancer regression and could become a possible method of cancer treatment in the future.

After months of research devoted to finding the connection between cancerous patients developing infections and their own remission, Coley



William Bradley Coley

LATE BREAKING NEWS

SUN SPOT CYCLE...The current solar cycle #24 is the weakest solar cycle in more than a century and it is now heading towards the next solar minimum phase which would be the beginning of solar cycle #25. Propagation recently has been extremely poor and the upcoming cycle is slated to be equally weak.

SCHOLARSHIP WINNERS:

Our first Marco-ARRL scholarship winner is Nicola Thompson K0MTC, of Platte City, MO. The full list of recipients can be viewed at <http://www.arrl.org/news/view/arrl-foundation-announces-2018-scholarship-recipients>.

NEED CATEGORY I CME?

Go to www.mpmcme.org enter; go to "medical surgical archives" and a list will pop up...pick the lecture you want (includes mandatory ones) & when completed take the simple test and submit it to "Lee" for accreditation. When your medical license is up for renewal, notify Lee & she will submit the papers required. Tell her you affiliated with the hospital through MARCO and Dr. Warren Brown.

(Tnx to Morton Plant Hospital, Clearwater, Florida, an associate of the University of South Florida medical school.

WRITE TO US!
 We welcome your comments.
 Mail to Marco, P.O. Box 127,
 Indian Rocks, FL,
 33785. Email to
 warren.brown1924@gmail.com
 Letters may be edited for
 brevity & clarity.

MARCO NET SCHEDULE

<u>DAY</u>	<u>EASTERN</u>	<u>FREQ.</u>	<u>NET CONTROLS</u>
Any Day	On the Hour	14.342	Hailing Frequency
Sunday	10:30 a.m. Eastern	14.140	CW Net, Chip, N5RTF
Sunday	11 a.m. Eastern	14.342	Warren, KD4GUA

(Alternate confidential Grand Rounds frequency—
 on or about 14.344 or as announced on the air.)

**MARCO'S CW
 NET IS NOW
 CALLED THE
 "Bob Morgan
 Memorial
 Net"
 Sundays, 10:30 am,
 14.140 MHz**

Page 2

MARCO Grand Rounds is held Sunday at 11 a.m. Eastern Time; 10 a.m. Central; 9 a.m. Mountain, and 8 a.m. Pacific Coast time on 14.342. You qualify for one hour Category II CME credit with your check-in.

decided to pursue his notion that such recoveries, considered miraculous, were provoked by an immune response in the body. In 1891, he began his experiments on a patient name Zola, an Italian immigrant with a life-threatening tumor which he described as "the size of a small hen's egg" in his right tonsil. Coley injected streptococcus directly into his tumor which completely disappeared within two weeks. Two years after Zola's initial treatment, Coley treated ten more of his own patients with the same live streptococcus but then changed his injections to two dead bacteria, streptococcus pyogenes and serratia marcescens. The formula change to the use of dead bacteria drastically reduced the risk of death; however, Coley's toxins still remained controversial.

Coley received an abundance of attention and in 1893 he published a paper "The treatment of malignant tumors by repeated inoculations of Erysipelas with a report of ten original cases".

The American Cancer Society released a review of the study in which it questioned its credibility at such an early stage, stating, that "more research would be needed to determine what benefit, if any, this therapy might have. In 1894 the AMA published an editorial with a similar stance, calling question to the "entire failure" of the injections and labeling it as an "alleged remedy."

By 1901, the development of x-rays showed great promise. The therapy resulted in immediate tumor destruction and pain relief. Coley had arranged for a wealthy friend to provide funds to purchase two x-ray machines for his use. However, after several years of experience Coley came to the conclusion that the effect of that primitive x-ray therapy in the untrained hands of experimenters was temporary and not curative. The scientific majority disagreed, most notably his cotemporary James Ewing. He cited the dangerous and unpredictable effects, predominantly the fever caused by the bacteria, that the vaccine had upon individuals weakened by cancer. Thus, the Coley's vaccine soon became obsolete due to the adoption of radiation technology.

From its creation in 1893, to 1962 with the introduction of the Kefauver Harris Amendment, Coley's toxins were being used to treat several types of cancers around the world. In the U.S., it was exclusively sourced by Parke-Davis. The passing of the 1962 Kefauver Harris Amendment, (*Drug Efficiency Act to prevent Thalidomide from causing birth defects*) however, required Coley's toxins to be labeled as a "new drug not tested" by the FDA. It was this final blow to Coley's life work that drastically reduced the use of his concoction for cancer treatment. Since its changed status under the FDA, it has only been able to be prescribed through experimental clinical trials, which have continuously produced mixed results.

In 1935, both the JAMA and cancer surgeon Ernest Amory Codman reversed their positions on the validity of Coley's Toxin suggesting that "the combined toxins of erysipelas and prodigious undoubtedly may sometimes play a significant role in preventing or retarding malignant recurrences or metastases.

William Coley died In April 16, 1936, at the age of 74.

Today, in 2018, scientists are removing patient's blood containing T-cells and subjecting them to an interleukin-2 bath or actual tumor cells which invigorates them (*similar to an infection*) and then replacing them in the patient's body where they can now attack and destroy the cancer cells.

Dr. Arthur Larson, KK1Y, MARCO member and thoracic surgeon recalls the use of BCG bacteria in the lung cavities of lung cancer patients. Q. Did it work? A. Sometimes? BCG is sometimes used in bladder cancer.

THE LATEST "CUTTING EDGE"

Personalized Tumor Vaccine Shows Promise in Pilot Trial



A new type of cancer vaccine has yielded promising results in an initial clinical trial at the University of Pennsylvania. The personalized vaccine is made from patient's own immune cells which are exposed in the lab to the contents of the patient's own tumor cells, and then injected into the patient to initiate a wider immune response. The trial was conducted on advanced ovarian cancer patients,

Most cancer vaccines developed to date have been designed to recognize and attack a specific known molecule—such as a cell surface receptor—that is likely to be found on cancerous cells in any patient with that type of tumor. Each vaccine is essentially personalized for the individual patient, using the patient's own tumor which has a unique set of mutations and thus a unique presentation to the immune system. It is also a whole-tumor vaccine, meant to stimulate an immune response against not just one tumor-associated target but hundreds or thousands.

Each patient's vaccine is made by sifting through the peripheral blood mononuclear cells for suitable precursor cells, and then growing these, in the lab, into a large population of dendritic cells. Dendrite cells are essential for an effective T-cell immune response. They normally ingest infectious pathogens, tumor cells, or anything else considered "foreign," and re-display pieces of the invader to T-cells and other elements of the immune system, to trigger a specific response. The researchers exposed the dendritic cells to specially prepared extracts of the patient's tumor, activated the cells with interferon gamma, and injected them into the patient's lymph nodes, in order to prime a T-cell response.

The team tested this strategy on 25 patients, each of whom received a dose of tumor-exposed dendritic cells every three weeks, in some cases for more than six months. Half of the patients that could be evaluated showed big increases in the numbers of T-cells specifically reactive to tumor material indicating a good response to vaccination.

The 2-year overall survival rate of these responders was 100%, whereas the rate for non-responders was just 25%.

One patient, a 46-year old woman, started the trial with stage 4 ovarian cancer—which generally has a very poor prognosis—following five prior courses of chemotherapy. She received 28 doses of her personalized vaccine over a two-year period, and thereafter remained disease-free for five years.

POEM (patient oriented evidence that matters) FOR MONTH

Clinical question: Are opioid medications preferable for improving pain-related function in adults with severe chronic back, hip or knee pain?

Bottom Line: Non-opioid medications were at least as effective as opioid medications for improving pain related functions over 12 months in adults with severe chronic back pain or knee or hip osteoarthritis pain. The evidence that opioids are not superior to non-opioid medication's for chronic and acute pain continues to mount. The tough job will be getting patients and their clinicians to believe the evidence.

Some fruit juices and fruits can interact with numerous drugs, in many cases causing adverse effects. The effect was first discovered by accident, when a test of drug interactions with alcohol used grapefruit juice to hide the taste of the ethanol.

It is still best-studied with grapefruit and grapefruit juice but similar effects have more recently been seen with some (not all) other citrus fruits. One medical review advises patients to avoid all citrus juices until further research clarifies the risk. The interacting chemicals are found in many plants, and so many other foods may be also affected; effects have been observed with apple juice, but the clinical significance is not yet known.

Normal amounts of food and drink, such as one whole grapefruit or a small glass of juice, can cause drug overdose toxicity. **Fruit consumed three days before the medicine can still have an effect.** The relative risk of different types of citrus fruit have not been systematically studied. Affected drugs typically have an auxiliary label saying “Do not take with grapefruit” on the container, and the interaction is elaborated on in the package insert.

The effects are caused by furanocoumarins and flavonoids. These chemicals inhibit key drug metabolizing enzymes, such as cytochrome P450 3A4, a metabolizing enzyme for almost 50% of drugs and is found in the liver and small intestinal epithelial cells. As a result, many drugs are affected. Inhibition of enzymes can have two different effects, depending on whether the drug is either 1. Metabolized by the enzyme to an inactive metabolite or 2. activated by the enzyme to an active metabolite.

If the active drug is metabolized by the inhibited enzyme, then the fruit will stop the drug being metabolized, leaving elevated concentrations of the medication in the body, which can cause adverse effects. Conversely, if the medication is a prodrug, it needs to be metabolized to be converted to the active drug. Compromising its metabolism lowers concentrations of the active drug, reducing its therapeutic effect, and risking therapeutic failure.

Low drug concentrations can also be caused when the fruit suppresses drug absorption from the intestine.

Citrus fruits may contain a number of polyphenol compounds, including the flavonoid naringin and furanocoumarins. These are natural chemicals that may be present in all forms of the fruit, including freshly squeezed juice, frozen concentrate and whole fruit. Grapefruit, Seville oranges, and possibly other citrus also contain large amounts of naringin. It can take up to 72 hours before the effects of the naringin on the enzyme systems are seen.

When drugs are taken orally, they enter the gut lumen to be absorbed in the small intestine and sometimes in the stomach. In order for drugs to be absorbed, they must pass through the epithelial cells that line the lumen wall before they can enter the hepatic portal circulation to be distributed systemically in blood circulation. Drugs are metabolized by drug-specific metabolizing enzymes in the epithelial cells. Metabolizing enzymes transfer these drugs into metabolites. The primary purpose for drug metabolism is to detoxify, inactivate, solubilize and eliminate these drugs. As a result, the amount of the drug in its original form that reaches systemic circulation is reduced due to this first-pass metabolism.

Furanocoumarins irreversibly inhibit a metabolizing enzyme cytochrome P45- 3A4 This is a metabolizing enzyme for almost 50% of drugs, and is found in the liver and small intestinal epithelial cells. As a result many drugs are impacted by consumption of citrus juice. When the metabolizing enzyme is inhibited, less of the drug will be metabolized by it in the epithelial cells. A decrease in drug metabolism means more of the original form of the drug could pass unchanged to systemic blood circulation. An, unexpected high dose of the drug in the blood could lead to fatal drug toxicity. The CYP3A4 is located in both the liver and the enterocytes. Many oral drugs undergo first-pass metabolism by the enzyme. Several organic compounds found in citrus and specifically in grapefruit juice exert inhibitory action on drug metabolism by the enzyme. **Intestinal enzyme inhibition will only affect the potency of orally administrated drugs.** When larger amounts are consumed they may also inhibit the enzyme in the liver. The hepatic enzyme inhibition may cause an additional increase in potency and a prolonged metabolic half-life. The degree of the effectd varies widely between individuals and between samples of juice.

The interaction is greatest when the juice is ingested with the drug or up to 4 hours before the drug. It takes around 24 hours to regain 50% of the cell’s baseline enzyme activity and it can take 72 hours for the enzyme activity to completely return to baseline. For this reason, simply be wary of the use of citrus juices pending further review.

Xenia, Ohio, Hamvention marked another successful year in 2018, with 28,417 visitors, its third-largest attendance ever in its second year at the new location in Xenia, Ohio

The drop in attendance amounted to some 900 fewer visitors from 2017. Hamvention attendance peaked in 1993 at 33,669, while it was still being held at Hara Arena before the 1996 change in date from April to May.

Events in the Xenia-Dayton area cramped lodging availability, but Dayton Amateurs were very pleased with the results and comments everyone has made about this year’s event.

A REAL HAM AT 11 YEARS OF AGE...Patrick Johnson, KI7DNL Springville, Utah, wrote to QRZ: “I am 11 years old and got my license in April 2016. A problem I have found is that there are not many people my age who are hams, and I think it would be cool to have more on the air. A way that I have tried to change this is having my Dad (KF6MIQ) come to my class to introduce ham radio. We brought a 2-meter antenna so my class could try third-party operating and experience ham radio. Everyone thought it was awesome! We did Morse code hangman and made Morse code necklaces with our names on them. I am also creating an Amateur Radio study group with a few of my friends that will meet twice a week for an hour. I would like to encourage other younger kids to help their friends become hams.” (Editor’s note: This rings a bell, as my first exposure to Ham Radio was at age 15 in the Radio Club at Pottstown (Pa.) High School, Station W3HOE.)

METFORMIN: 1ST CHOICE DRUG FOR TYPE 2 DIABETES. (“Choosing Wisely”)

(This POEM From “Worst Pills, Best Pills News,” Aug.2018.)

Metformin (FORTAMET, GLUCOPHAGE, GLUMETZA, RIOMET) was approved by the FDA in 1995 for use in combination with diet and exercise to control blood sugar in type 2 diabetics.

It is the drug of choice for initial treatment of patients with type 2 diabetes who are not able to control their blood sugar through diet and exercise alone and who do not have severe kidney impairment. One of the most effective drugs for lowering blood sugar, metformin does not cause weight gain, rarely causes hypoglycemia, has few side effects and is available in generic versions at low cost.

MARCO STREAMING AUDIO & ARCHIVE INSTRUCTIONS



Don’t miss Warren’s legendary Grand Rounds presentations (Sunday’s, 14.342 MHz at 11 am) and our distinguished guest presenters just because sunspot number are approaching zero. There is no shame to listening on the internet. We have been averaging 5-11 listeners per week all summer.

Instructions are as follows: You can listen to the MARCO CW net and Grand Rounds by internet streaming audio. If you miss the SSB net check it out later through the Archive.

To Listen: Use a browser to go to the following web page which has a player app and links to the audio stream and archive: <http://marcoaudio.ddns.net:2199/start/keister>. There is a world map on the page which updates to show current listeners and locations.

The second way is to manually enter: <http://marcoaudio.ddns.net:8011/stream> into a standard music player on computer, phone, or portable device while the net is in progress.

Feel free to share these links with anyone. MARCO member or not. No login to downloads. Comments are appreciated. [Chip N5RTF](#)

LETTERS TO THE SOCIETY:



Kudos from: Dave Justis, KN0S, Wicomico, VA
From Malin Dollinger, KO6MD, Rancho Palos Verdes,

CA. (malind@cox.net)..Ehlers-Danlos syndrome is a long-term interest of mine, since my wife has the hypermobility type (importantly, not the vascular type). So let me make a few comments for general interests, from someone who s personally involved with this syndrome. There is the Ehlers-Danlos Society, which assists folks with this condition, at last count some 13 different varieties, but there have been a number of different classifications over the years. For the most common variety, which my wife has, it may be inherited as an autosomal dominant gene. Neither of our two “genetic” children seems to have the condition. Yes, there are fancy genetic tests, but this disease is real easy to diagnose. Simply ask the patient, “Can you do this?” (meaning bending the thumb back so it touches the wrist.) I can’t but my wife can! So with Ehlers-Danlos syndrome, this is a very practical and important reason for any procedure that can be done through a scope vs. an open incision. There is no “treatment,” you can’t fix the ineffective collagen. The best index of possible difficulty might be the healing time required? I would advise any surgeon to leave the sutures in for about 13 days to avoid wound disruption...I’ll listen to the net via the internet streaming pathway and look forward to hearing the discussion. “

Malin has been informed that the discussion on Ehlers-Danlos took place in April 2018 and he may be able to connect with the Archives by contacting Chip Keister by phone.

Dave Justis, KN0S, Wicomico, VA sent in an article dealing with the FDA expedited approval issue. Dave had previously performed research in clot-dissolving medications.

Ian Kellman K3IK’s absence from the airways has been due to a knee replacement and he suggests all replacement candidates get the post op rehab exercises before the surgery. He says he has 80 DXCC countries confirmed in a few months over LOTW. Fascinating what you can work when you can’t even hear it, especially on 80 and 160.

Bruce Small, KM2L writes: We will soon see the rollout of 5G technology, which will be based on a distributed network of low-power cells, transmitting at frequencies high enough that the radiation will not penetrate deeper than the skin. In the meantime, no one is suggesting that cell phones radiation has beneficial health effects, so it makes sense to be mindful of your exposure.

Paul Lukas, N6DMV, suggests we have a discussion of the connection between the circadian cycle and drug intake. It seems to me that this issue is not well explored. Some researchers prefer drugs to be taken in the evening instead at night, etc. This would be a “tuffy” except for gastric irritation and night stimulation because each drug has a “best time.” Paul suggests we contact spaceweather.com to check on sun spot activity.—excellent suggestion. Paul also states: The sun has been blank for 21 straight days—a remarkable 3 weeks without sunspots. This is an almost decade-class event. The last time the skin lost its spots for 21 consecutive days was in 2009. Visit today’s edition of Spacewatcher.com to learn more about solar minimums and find out what it means to us on Earth.

Ralph Brigham KG4CSQ, Huntsville, AL. : Aug. 12, 2018, Today on Grand Rounds you (KD4GUA) kept talking & talking, no one else could get in...please remember to take breaks! **Reply:** You are right, I even got fed up listening to myself...it was a dull but interesting subject, please speak up! Constructive criticism always welcome.

EDITOR’S NOTE: Walter Winchell began broadcasting in 1933 to an audience of 25 million people. The Winchell style was unmistakable. He talked rapidly at 197 words per minute..the voice was high-pitched and not pleasant to the ear; but it was distinctive. The staccato quality made every item compelling. He claimed he talked so fast because if he talked more slowly people would find out what he was saying...he began his radio program with a series of dots and dashes operating the key himself. Telegraphers throughout the country complained that what Winchell tapped out made no sense. He realized he hadn’t the faintest knowledge of Morse code but he refused to have an experienced telegrapher provide the sound effects for him. He wrote like a man honking in a traffic jam.

(Some of Walter’s “blessed events” were “fake news;” Some of his protégés have inherited his weakness to produce the same—beware!)

Float Tanks...the latest relaxation craze? The \$30,000 egg-shaped Revolution Float Orb is the most popular residential option. Home installation of the stand-alone unit requires an electrical outlet, a water line and drain setup. The water, which is about a foot deep is heated and mixed with about 1,000 pounds of Epsom salt to enable floating. After 3-4 minutes, the skin temperature will sync up and it is all aboard. Saltwater is filtered and can be reused for one or two years. Some units have removable star-studded dark canopies for complete relaxation and look like space ships. Years ago, an outfit guaranteed a 5 lb. weight loss in one hour by dropping applicants in a heavily salt-water pit similar to the effect of salt water swimming at the beach causing the skin to wrinkle from dehydration also known as “osmosis.” (Of course the weight was soon regained by the thirsty victim.)

Ties constrict blood flow... Researchers in Germany asked 5 healthy young men to put on a tie and make a Windsor knot. These men then underwent three MRI scans. During the first scan they wore the tie loosely with an open collar. Next, the men tightened their ties to the point of slight discomfort. During the third scan, they loosened their tie and collar again. After comparing these images to MRI scans of men who were not wearing ties, the researchers found that wearing tightly secured neckties reduced blood flow to the men’s brains by an average of 7.5%. This may not be enough to cause obvious symptoms or serious damage, but blood flow carries oxygen and nutrients to the brain, so any reeducation is reason for concern. (Besides, ties carry pathogens and physicians have been asked to wear bow ties.)

Most people got married in June because they took their yearly bath in May, and they still smelled pretty good by June. However, since they were starting to smell, brides carried a bouquet of flowers to hide the body odor. Hence the custom today of carrying a bouquet when getting married.

The floor was dirt. Only the wealthy had something other than dirt. Hence the term, “dirt poor.” The wealthy had slate floors that would get slippery in the winter when wet, so they spread thresh (straw) on the floor to help keep their footing. As the winter wore on. They added more thresh until, when you opened the door, it would all start slipping outside. A piece of wood was placed in the entrance-way. Hence the word “thresh hold.”

About 14% of U.S. adults said they were smokers...that’s down from 16% in 2016 and 20% in 2006.

Bad breath is healthy? Using mouthwash can raise the risk of Type 2 diabetes. Harvard researchers found that the antibacterial ingredients in mouthwash make overweight people who are at high risk of developing the disease 55% more likely to develop diabetes within 3 years. The reason appears to be that mouthwash indiscriminately washes away all bacteria destroying good bacteria as well as bad including bacteria that help the body produce nitric oxide, which helps regulate levels of insulin.



IS "LEAKY GUT SYNDROME" FOR REAL?

A phenomenon called "leaky gut" has gained quite a bit of attention lately, particularly among natural health enthusiasts. Leaky gut, also known as increased intestinal permeability, is a digestive condition in which bacteria and toxins are able to "leak" through the intestinal wall.

Mainstream medical professionals do not recognize leaky gut as a real condition.

However, there is quite a bit of scientific evidence that leaky gut does exist and may be associated with multiple health problems.

The human digestive tract is where food is broken down and nutrients are absorbed. The digestive system also plays an important role in protecting your body from harmful substances. The walls of the intestines acts as barriers, controlling what enters the bloodstream to be transported to your inner organs.

Small gaps in the intestinal wall called tight junctions allow water and nutrients to pass through, while blocking the passage of harmful subtenants. Intestinal permeability refers to how easily substances pass through the intestinal wall.

When the tight junctions of intestinal walls become loose, the gut becomes more permeable, which may allow bacteria and toxins to pass from the gut into the bloodstream. This phenomenon is commonly referred to as "leaky gut."

When the gut is "leaky" and bacteria and toxins enter the bloodstream, it can cause widespread inflammation and possibly trigger a reaction from the immune system.

Supposed symptoms of leaky gut syndrome include, bloating, food sensitivities, fatigue and autism.

Proponents claim that it's the underlying cause of all sorts of conditions, including chronic fatigue syndrome, migraines, multiple sclerosis, fibromyalgia, food sensitivities, thyroid abnormalities, mood swings, skin conditions and autism. The problem is that very few scientific studies mention leaky gut syndrome. Nevertheless, medical professionals do agree that increased intestinal permeability, or intestinal hyper permeability exists in certain chronic diseases.

What causes leaky gut? This syndrome remains a bit of a medical mystery, and medical professionals are still trying to determine exactly what causes it. A protein called zonulin is the only known regulator of intestinal permeability. When it's activated in genetically susceptible people, it can lead to leaky gut. Two factors that trigger the releases of zonulin are bacteria in the intestine and gluten, which is a protein found in wheat and other grains.

However, some studies have shown that gluten only increases intestinal permeability in people with conditions like celiac disease or irritable bowel syndrome. These are likely multiple contributing factors to leaky gut syndrome.

Below are a few factos that are believed to play a role:

Excessive sugar intake: An unhealthy diet high in sugar, particularly fructose, harms the barrier function of the intestinal wall.

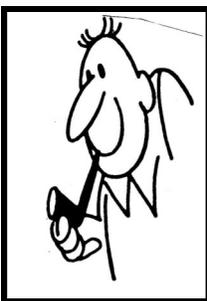
Non-steroidal anti-inflammatory drugs (NSAIDs): The long-term use of NSAIDs like ibuprofen can increase intestinal permeability and contribute to leaky gut.

Excessive alcohol intake.

Nutrient deficiencies: Deficiencies in vitamin A, D and zinc have each been implicated in increased intestinal permeability.

Inflammation & Stress.

Poor gut health.



5

Yeast overgrowth.

Diseases Associated with Leaky Gut:

The claim that leaky gut is the root of modern health problems has yet to be proven by science. However, many studies have connected increased intestinal permeability with multiple chronic diseases:

Celiac disease is an autoimmune disease characterized by a severe sensitivity to gluten. **Diabetes Type 1** reveals that increased intestinal permeability plays a role in the development of type 1 diabetes which is caused by an autoimmune destruction of insulin-producing beta cells in the pancreas. It has been suggested that the immune reaction responsible for beta cell destruction may be triggered by foreign substances "leaking" through the gut. One study found that 42% of individuals with type 1 diabetes had significantly elevated

zonulin levels. **Crohn's Disease:** Increased intestinal permeability plays a significant role in Crohn's disease. This is a chronic digestive disorder characterized by persistent inflammation of the intestinal tract. This suggests that increased permeability may be connected to the genetic component of Crohn's. **Irritable Bowel Syndrome:** Studies have found that people with irritable bowel syndrome (IBS) are likely to have increased intestinal permeability. IBS is a digestive disorder characterized by both diarrhea and constipation. One study found that increased intestinal permeability is particularly prevalent in those with diarrhea. **Food Allergies:** A few studies have shown that individuals with food allergies often have impaired intestinal barrier function. A leaky gut may allow food proteins to cross the intestinal barrier, stimulating an immune response.

Is Leaky Gut a Cause or Symptom of Disease? Skeptics argue that increased intestinal permeability is a symptom of chronic disease rather than an underlying cause. Interestingly, animal studies on celiac disease, type 1 diabetes and IBS have identified increased intestinal permeability prior to the onset of disease. This evidence supports the theory that leaky gut is involved in the development of disease. On the other hand, a study found that intestinal permeability in people with celiac disease returned to normal in 87% of people who followed a gluten free diet for over a year. A gluten free diet is the standard treatment for celiac disease. This suggests that the abnormal intestinal permeability may be a response to gluten ingestion, rather than the cause of celiac disease. Overall, there is not yet sufficient evidence to prove that leaky gut is the underlying cause of chronic diseases.

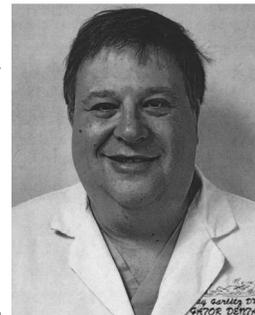
SUMMARY: There is sufficient evidence to demonstrate that leaky gut syndrome exists. However, science has not yet proven that conditions like autism or cancer are related to leaky gut syndrome.

W.C. Fields SPEAKING: a rich man is nothing but a poor man with money. A thing worth having is a thing worth cheating for. A woman drove me to drink and I didn't even have the decency to thank her. Abstaining is favorable both to the head and the pocket. Always carry a flagon of whiskey in case of snake-bite and furthermore always carry a small snake. Horse sense is the thing a horse has which keeps it from betting on people. I am an expert of electricity. My father occupied the chair of applied electricity at the state prison. I am free of all prejudice, I hate everyone equally. I cook with wine, sometime I even add it to the food.

KEEP MARCO PERKING !

Pass this copy to a friend OR send us a \$15 membership





Summers in Florida are not the most comfortable of times. Many of our members visit our state but are wise enough to do so during cooler months. We fortunately have inside activities such as sporadic-E season to keep us entertained, and what a season it was., especially using FT8 on 6m.

Planning our escape from the heat occupies a great deal of our summertime here in Florida. Dreams of upcoming changes in the weather and travel offer hope for more comfortable days. Sharing time with MARCO friends and traveling goes hand-in-hand, with numerous opportunities between now and May of 2019.

MARCO has many new member friends to share time with. Publicity from our Facebook group sharing of our excellent Aether newsletter with others, presence at 2018 HamCation and HamVention, creation of a public Facebook page, awarding of MARCO scholarships from the ARRL and the Foundation for Amateur Radio and planning a 2019 meeting with a post-meeting cruise component have all led to new interest and growth in our organization.

Our first MARCO scholarship winners were announced in August. The ARRL Medical Amateur Radio Council MARCO Scholarship recipient is Nicola Thompson, KOMTO, of Platte City, MO. Our MARCO Foundation for Amateur Radio Scholarship was awarded to Kelsey Seymour, K3LSY, of Wellsboro, PA. Congratulations to Nicola and Kelsey! May these scholarships foster a life long involvement of your amateur radio interests with your career in the Healing Arts.

Plans are being made for our MARCO 2019 Annual Meeting in Tampa, FL., April 26-28, 2019. More details for the annual meeting activities can be found through a link on our Website. This is also true for optional eight day post meeting cruise to the Western Caribbean leaving out of Tampa on April 28, and returning May 5. 11 cabins have booked by members and friends as of the "August 28th day that I am writing this column, with more expected.

Licensing and planning is being made for three Dx stops during the cruise—an on-land radio operating component. The cruise line has already given their blessing for the radio equipment coming on and off the ship. With final licensing approval of our "finals" we will deploy two ham radio stations on land in Belize, Honduras and Grand Cayman when the ship stops in port. Plans go beyond radio, there will be many activities to do at sea and on shore for all that attend. Recreate and radiate with us! Is this a DXpedition? Not in the classic sense but think of the fun to be had, and the wonderful publicity that can be created. Think in terms interested by hams in working our special event DX stations to get our QSL card, and of an article in QST! It is not too late to make reservations to join us—check our Website for information.

We will have a MARCO booth at HamCation in Orlando Feb. 8-10, 2019, and at HamVention in Xenia/Dayton May 17-19, 2019. In Orlando we will have a practice session for radio deployment and of operation for our DX adventures in May 2016. Please put these events n your calendar and come join us.

In friendship and dedication to MARCO,

Jay, AA4F



Q. What is the best approach to evaluate patients with suspected pulmonary embolism?

A. Acute PE accounts for one out of 400 to 1,500 adult presentations' in the emergency room with a 30-day mortality rate of 5.4%. Chronic thromboembolic pulmonary hypertension further adds to morbidity in 4.8% of patients who survive PE. PE has a highly variable presentation.

Many clinical decision rules exist to estimate the patient's risk level based on certain clinical characteristics and subsequently guide the evaluation of suspected PE. These include the Wells score, Geneva score, Pisa model and Pulmonary Embolism Rule-out Criteria (PERC). Each of the rules has advantages and disadvantages.

The Wells score consists of 7 characteristics based on the history and physical exam, forgoing the need for additional testing. However, the Wells score incorporates a subjective judgment: an estimate of the probability of PE and where it is more or less likely than an alternative diagnosis. Each characteristic is assigned a point value, and the cumulative score places patients into risk categories that guide further testing.

The Geneva score consists of 8 objective characteristic, eliminating the physician's subjective judgment. Like the Wells score, each characteristic is assigned a point value, and the cumulative score stratifies patients into different risk categories.

The PERC, consists of 8 characteristics. In a study of 61,322 patients in an urban E.R., those with none of the characteristics had a less than 1% likelihood of PE. The Pisa model (not shown) consists of 11 characteristics but requires an ECG or a chest radiograph depending on the version of the test.

Only the Wells and Geneva scores have been studied specifically in primary care, making them, the preferred clinical decision rules in the his setting.

A study comparing different versions of the Geneva and Wells scores in a prospective cohort of inpatients and outpatients found that all versions were similar in performance. A meta-analysis of 12 studies including 3,613 inpatients and outpatients from E.R.s concluded that the original Wells score was more accurate and effective than the revised Geneva score.

Applying the Evidence...A 49-year old man presents to your office with increasing shortness of breath that began two days ago. He has a productive cough, but no hemoptysis. He does not have a history of deep venous thrombosis or PE episodes, recent surgeries, fractures or prolonged periods of immobilization, or cancer. He has a 30-pack-year smoking history but has never had pulmonary function testing. He has no sick contacts and does not have fever, chills, or other signs or symptoms suggesting pneumonia. On exam he has no lower extremity swelling or pain. Homans sign is negative, and his pulse is 92 bpm. His pulse oxygen level is 97% on room air.

He receives 6 points on the simplified Wells score; therefore, PE is a less likely diagnosis than chronic obstructive pulmonary disease. He receives 1 point on the simplified revised Geneva score. Based on these scores, the patient has a low pretest probability of PE. The PERC rules out PE. It would be reasonable to forgo any further testing for PE.

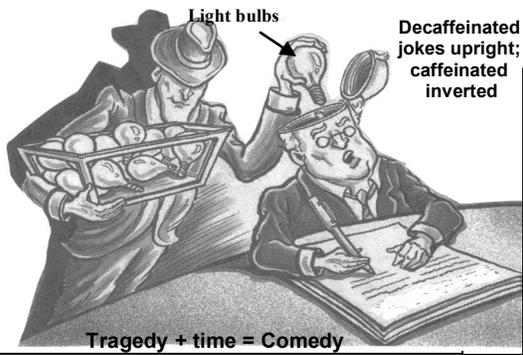
<u>WELLS SCORE</u>		<u>GENEVA SCORE</u>	
<u>Clinical characteristics</u>	<u>Points</u>	<u>Clinical characteristics</u>	<u>Points</u>
Previous PE or DVT	1.5	Previous PE or DVT	1
Surgery or immobilized		Surgery or immobilized	
Within 4 weeks	1.5	Within 4 weeks	1
Hemoptysis	1	Hemoptysis	1 Pain
Clinical signs of DVT	3	on lower limb deep venous	
Alternative diagnosis less		Palpation & unilateral edema	1
Likely than PE	1	Unilateral lower limb pain	1
Active Cancer	1	Active cancer	1
Heart rate 100+ beats/minute	1.5	Heart rate 94+ beats/minute	1 Age
Clinical signs of DVT	3	greater than 65	1
PE likely diagnosis	3		
TOTAL	4 pts + likely Disease	TOTAL	2 pts. Or less unlikely disease

PERC rule to stop workup for PE

Clinical characteristics:

No history of venous thromboembolism. No surgery or trauma within four weeks. Initial oxygen saturation greater than 94% on room air. No hemoptysis. No unilateral leg swelling. No estrogen use. Initial heart rate less than 100 beats/minute.

LIGHTEN UP...



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"Aether" printing has been performed by Colorfast Printing (5 stars), 14114 63rd Way N., Clearwater, , FL. Phone: 727 531 9506, Fax 727 531 1684 .

A STATE TROOPER WAS PATROLLING ONE NIGHT...He sees a couple in a car with the interior light brightly glowing. He approaches to get a closer look. He sees a young man behind the wheel reading a magazine. He notices a young woman in the rear seat filing her fingernails. Puzzled the trooper walks to the car and gently taps on the window. The young man lowers his window... "Uh, yes, Officer?" The trooper asks "What are you doing?" The young man lowers his window, "Uh, Officer I'm reading a magazine." Pointing towards the young woman in the back the trooper says, "And what is she doing?" The young man shrugs, "Sir, I believe she's filing her fingernails." The trooper asks, "What's your age, young man?" The young man says, "I'm 22, sir." The trooper asks "And her..what's her age?" The young man looks at his watch and replies, "She'll be 18 in 11 minutes."

If you don't put on your left sock first, you don't do it the way most people do it.

Knock, knock...Who's there? Adair! Adair who? Adair once but I'm bald now!

Did you hear about the guy whose condo was so small he was forced to buy condensed milk?

How to wipe out a country: Allow those men who want to marry men, marry men. Allow those women who want to abort their babies, abort their babies. In three generations there will be no country.

Boudreaux, the smoothest-talking Cajun in the Louisiana National Guard, got called up to active duty. His first assignment was in a military induction center where they assigned him the duty of advising new recruits about government benefits, especially the GI insurance to which they were entitled. The officer in charge soon noticed that Boudreaux was getting a 99% sign-up rate for the more expensive supplemental form of GI insurance. This was remarkable, because it cost these low-income recruits \$30 per month for the higher coverage, compared to what the government was already providing at no charge. The officer decided he'd sit in the back of the room at the next briefing and observe Boudreaux's sales pitch. Boudreaux stood up before the group of inductees and said, "If you has da normal GI insurans an' you goes to Afghanistan an' gets yourself killed, da govment' pays you beneficiary \$200,000. If you take out da supplemental insurans, which cost you only t'irty dollars a munt, den da government' gots ta pay you benefifshery \$400,000. "Now," Boudreaux concluded, "which bunch you tink da government's gonna send ta Afghanistan first?"

"A single glass at night could mean a peaceful interrupted nights sleep." New wine for seniors..Clare Valley vintage Pinot Grigio wines, have developed a new hybrid grape that acts as an anti-diuretic. It is expected to reduce the number of trips older people have to make to the bathroom during the night. The new wine will marketed as Pino More.

Instead of cleaning the house I just turn off the lights.

- THE BLIND GIRL...There was a blind girl who hated herself because she was blind. She hated everyone except her ever-loving boyfriend. He was always there for her. She told her boyfriend, "If only I could see the world I would marry you." One day someone donated a pair of eyes to her. When the bandages came off she was able to see everything including her boyfriend. He asked, "Now that you can see the World will you marry me?" The girl looked at her boyfriend and saw that HE was blind. The sight of his closed lids shocked her. She hadn't expected that. Her boyfriend left in tears and days later wrote a note to her saying, "Take good care of your eyes, my dear, for before they were yours they were mine!"

MEMORIES OF YEARS AGO IN MARCO

Our History Book

Fifteen years ago in Marco

March 22, 2003 marked the passing of **Bob Currier WB5D** President of Marco and founder of Grand Rounds of the Air. Bob was a native of Grand Rapids, MI. He attended Carlton College prior to serving as a radio gunner with the 15th Air Force from 1943-1945, flying B-17s. Bob was color-blind and this disqualified him from pilot training. He once said, "what other field of medicine besides neurology could tolerate a man who could best see the color gray." Bob was Professor Emeritus of Neurology at the University of Mississippi. He was described as "kind, intensely honest, very bright, compassionate, self-less, an original thinker. " His wit, easy laugh, good company, scholarship and intellect are missed. Marco members are a lot smarter today, thanks to his ability to hold attention during those Sunday radio sessions. He was really a "*Walter Cronkite* of Ham Radio.

Ten years ago in Marco

October 2008...**Arnold Kalan WB6OJB** was in Swaziland on his 18th trip to Africa...busy with DX "pile-ups.

The new "Listserve" of Marco was begun by Bruce Small KM2L. Recent renewals were listed: Bobby Marek KM5VU (originally joined in 2000), Bob Conder K4RLC (2000), Keith Adams N3IM (1997), Harry Przekop WB9EDP (2001), John McCann Jr. WB5BHB (2001), Danny Centers W4DAN (2001), Paul Lukas N6DMV (2003), Paul Jemelian KG6JLE (2004), and Linda Krasowski KE5BQK (2004).

Five years ago in Marco

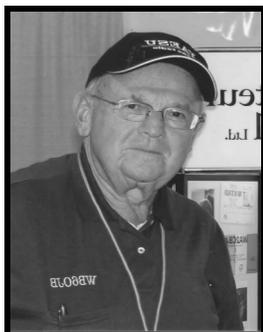
October 2013..."Why do middle-aged men get large bellies?" The answer is: BEER and the decrease in male testosterone along with the increase in female estrogens produced by the adrenal gland. And guess what? Estrogens are found in beer—is that why breasts enlarge as well as bellies?

Jay Garlitz AA4FL writes: "I will arrive in Fiji on Oct. 30, 2013, enroute to Tarawa and Bahaba Island as part of the DXpedition and will have an ICOM IC-7000 with me operating on 100w. On Banaba Island I will also be providing dental tooth extractions for the local residents.

The following was printed in AETHER: "It appears that the family doctor will fade into the past being replaced by the emergency room doctor and the hospitalist. The independent duty doctor will probably be replaced by the physician's assistant and nurse practitioners. (*Five years later it seems the prediction is coming true!*)

THE FUTURE LOOKS FUZZY!

A relatively new study has found the number of nearsighted people has risen 66% since the early 1970s. 50 years ago, roughly 25% of Americans between 12 and 54 needed corrective lenses, today nearly 42% test as nearsighted. Reason possibly our increasing affinity for computers and electronic devices.



MEDISHARE NEWS

Arnold Kalan, M.D., WB6OJB, Pacific Palisades, California, Marco's MediShare Director reports:

"No action on the MediShare front...we have money to share to destitute Hams here and abroad. **If you have knowledge of a worthy recipient please notify Arnold at: wb6ojb@yahoo.com**

8 BOB CURRIER MARCO GRAND ROUNDS OF

THE AIR. (Corrections to Marco), Sept. 11, 2018.

14,342, Sundays, 11 am Eastern, One Hour Cat. II CME

CALL	HRS.	NAME	QTH
KD4GUA	30	Warren	Largo, FL
N5RTF	29	Chip	New Orleans, LA
N2JBA	29	Ed	Amenia, NY
WB6OJB	28	Arnold	Pac. Pal., CA
KNOS	27	Dave	Virginia
KC9CS	27	Bill	Seminole, FL
N4TSC	27	Jerry	Boca Raton, FL.
WB9EDP	26	Harry	Batavia, IL
N5AN	26	Bud	Lafayette, LA
KM2L	25	Bruce	Clarence, NY
N6DMV	25	Paul	Torrance, CA
NU4DO	24	Norm	Largo, FL
WB1FFI	23	Barry	Syracuse, NJY
KE8GA	23	George	N. Carolina
N4MKT	23	Larry	The Villages, FL
W1RDJ	22	Doug	Cape Cod, Mass.
K6JW	22	Jeff	Palos Verdas, CA
W8LJZ	19	Jim	Detroit, MI
N9RIV	19	Bill	Danville, IL
W6NJY	19	Art	Beverly Hills, CA
KD5QHV	19	Bernie	El Paso, TX
N2OJD	19	Mark	Sidney, Ohio
KK1Y	18	Art	Seminole, FL
N8CL	17	Chuck	Albany, NY
KE5SZA	16	John	Marietta, OK
WA1EXE	16	Mark	Cape Cod, Mass.
K8QA	16	Rich	Knox, IN.
WA3QWA	15	Mark	Chesapeake, VA
KC9ARP	15	Michelin	Batavia, NY
WA1HGY	14	Ted	Massachusetts-
NOARN	14	Carl	Denver, CO
N9GOC	12	Pat	Champagne, IL
W3PAT	12	Marvin	Prosperity, SC
W2MXJ	12	Joe	Louisiana
WB9GET	11	Keith	Awin, TX
K0FS	10	Fred	St. Louis, MO
KG4CSQ	10	Ralph	Huntsville, AL
N9HIR	9	Bill	Berwyn, IL
WORPH	9	Tom	Denver, CO
KB5BQK	9	Linda	El Paso, TX
W9JPNM	8	Wally	Champagne, IL
N3IM	8	Keith	Springfield, PA
W4DAN	5	Danny	Cleveland, TN
KD8EFM	4	Dell	Ohio

Send corrections to MARCO, P.O. Box 127, Indian Rocks Beach, Florida, 33785.

YEAR	TOTAL CHECK-INS	AVERAGE PER SUNDAY
1998	694	14.46
1999	766	15.95
2000	1,035	20.29
2001	1153	22.60
2002	1383	26.15
2003	1489	28.63
2004	1534	29.50
2005	1517	29.17
2006	1531 (one extra Sunday)	28.89
2007	1591 (one extra Sunday)	30.02
2008	1524 (Only 46 nets)	33.14
2009	1533 (46 nets)	33.32
2010	1591 (44 nets)	36.22
2011	1514 (44 nets)	34.41
2012	1602 (44 nets)	36.41
2013*	1400 (44 nets) (New Freq)	31.82 (Year of terrorist)
2014	1756 (47 nets)	37.36
2015	1722 (49 nets)	35.14
2016	1687 (46 nets)	36.67
2017	1536 (46 nets)	34.13
2018	1076 (30 nets)	35.87

Record number of stations checked-in on radio was 51, on Feb. 24, 2013
53, July 29, 2018
Radio+Comp.

RECTAL FEEDING & COFFEE ENEMAS

As presented on Marco Grand
Rounds, June 3, 2018.

Nutrient enemas, also known as feeding per rectum, is an enema administered with the intent of providing nutrition when normal eating is not possible. Although this treatment is ancient, dating back at least to Galen and a common technique in 19th century medicine, nutrient enemas have been superseded in modern medical care by tube feeding and intravenous feeding.

A variety of different mixes have been used for nutrient enemas throughout history. It is likely, however, that because the rectum and lower digestive tract lack digestive enzymes, it is likely that only the end-products of normal digestion such as sugars, amino acids, salt and alcohol, will be absorbed. This treatment was given to U.S. President James A. Garfield after his shooting in 1881, and is asserted to have prolonged his life.

When the U.S. Senate published an unclassified summary of its 6,000 page classified report on the CIA's use of torture, its previously unknown use of "rectal rehydration" for punishment and torture became apparent.

A Wisconsin surgeon in the early 20th Century, John B. Murphy (1857-1916) introduced the "Murphy Drip" which is the installation of normal saline into the rectum or urine bladder for treatment of bladder hematomas and dehydration which is still sparingly in use today.

Then came coffee enemas....

A coffee enema is the procedure of injecting coffee via the anal canal to cleanse the rectum and large intestines. There is no medical, scientific evidence to support any positive health claim for coffee enemas. The process can result in sepsis, severe electrolyte imbalance, colitis, proctocolitis, internal burning, rectal perforation, and even brain abscess, heart failure or even death.

The idea of rectal cleansing dates back to the Ancient Egyptians, the notion of coffee as an enema-related substance is not new. It was conceived in 1917, and appeared in the *Merck Manual* until 1972. These enemas were used by German physicians searching for a cancer treatment in the early 1900s, but it was the "Gerson therapy" in 1920, that helped put the procedure on the map.

Max Gerson was a German-American doctor who believed you could detox the body and give it the nutrients it needs to heal itself using an organic plant-based diet, raw juices and coffee enemas. His rigorous program became known as the "Gerson therapy."

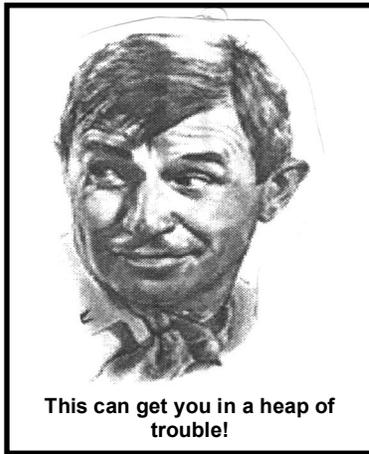
Gerson said that coffee (caffeinated) enemas had positive detoxification effects that contributed to the recovering health of his patients. He claimed that unlike saline enemas, coffee in the enema traveled through the smooth muscle of the small intestine, and into the liver. This, he said, stimulated the autonomic nervous system in the same way caffeine does when consumed orally and activates the release of bile in the liver, which cleared even more of the G.I. Tract and removed more toxins than a normal enema. He told his patients that the "coffee enemas are not given for the function of the intestines but for the stimulation of the liver."

Coffee enemas appeared in the Royal Army Medical Corps Manual in 1944 as a stimulating enema for the treatment of shock and poisoning and consisted of a combination of coffee and brandy.

The practice of colon cleansing experienced a renaissance in the 1990s, and at this time, coffee enemas were used as alternative cancer treatments.

Some proponents of alternative medicine have claimed that coffee enemas have a rapid detoxification effect by "detoxifying" metabolic products of tumors. There is no medical scientific evidence to support any detoxification or anti-cancer effect of coffee enemas.

When administered as often as every two hours, coffee enemas have shown to be connected to three cases of deaths as a result of severe electrolyte imbalances, infection, hyponatremia, dehydration and pleural and pericardial effusions. The FDA has ruled that study participants must be warned of the risk of death from coffee enemas in studies that use them.



9

The possible potential benefits of a coffee enemas include: the relief of constipation, a boost in immunity, and increased energy. The scientific evidence that proves or disproves that coffee enemas are helpful to treat any medical condition is apparently not taken seriously as the evidence is mostly anecdotal. In mainstream medicine, colon cleansing is considered unnecessary because your body's digestive system is capable of getting rid of waste, toxins and bacteria on its own.

The theory that colon waste is toxic to your body is known as auto-intoxication. Mainstream medicine doesn't advocate the use of coffee enemas whereas many people claim coffee enemas improve their health and well-being without negative side effects. Because hard statistics about coffee enemas are hard to come by, it's difficult to determine if most people have had a positive or negative experience with them.

What is known for sure, is that coffee enemas are potentially dangerous. The decision to have a coffee enema or not is a personal choice best made between you and the doctor.

What is this Gerson Therapy? Surprisingly "The Gerson Therapy regenerates the body to health, supporting each important metabolic requirement by flooding the body with nutrients from about 15-20 pounds of organically grown fruits and vegetables daily. Most is used to make fresh raw juice, up to one glass every hour, up to 13 times per day. Raw and cooked solid foods are generously consumed. Oxygenation is usually more than doubled, as oxygen deficiency in the blood contributes to many degenerative diseases. The metabolism is also stimulated through the addition of thyroid, potassium and other supplements, and by avoiding heavy animal fats, excess protein, sodium and other toxins."

"Degenerative diseases render the body increasingly unable to excrete waste materials adequately, commonly resulting in liver and kidney failure. The Gerson Therapy uses intensive detoxification to eliminate wastes, regenerate the liver, reactivate the immune system and restore the body's essential defenses—enzyme, mineral and hormone systems. With generous, high-quality nutrition, increased oxygen availability, detoxification, and improved metabolism, the cells—and the body—can regenerate, become healthy and prevent future illness."

Here is the procedure for up to 5 coffee enemas a day. First have a cleansing enema using soap, then take 3-4 tbl freshly ground organic caffeinated coffee and add to two quarts of filtered water, boil for 15-20 minutes, add 1 tsp of sea salt per quart to support a healthy electrolyte balance, lie down on left side and insert the enema nozzle and retain for 12-15 minutes and repeat one time.

"The Gerson Therapy is a natural treatment that activates the body's extraordinary ability to heal itself through an organic, plant-based diet, raw juices, coffee enemas and natural supplements."

"An abundance of nutrients from copious amounts of fresh, organic juices are consumed every day, providing your body with a super-dose of enzymes, minerals and nutrients. These substance then break down diseased tissue in the body, while coffee enemas aid in eliminating toxins from the liver."

"Every day a typical patient on the Gerson Therapy for cancer consumes up to 13 glasses of fresh, raw carrot-apple and green leaf juices. These juices are prepared hourly from fresh, raw, organic fruits and vegetables, using a two-step juicer or a masticating juicer used with a separate hydraulic press."

TREATMENT for abnormal side effects of coffee enemas...Stabilize electrolytes, stool culture & sensitivity studies, soft diet, avoid stimulating beverages, Gastroenterologist consult prn.

The Bottom Line, 2018...Stay away from rectal nutrition and therapy, it's disadvantages far out way any advantages of this out-moded treatment.

A POEM (patient-oriented evidence that matters) is a synopsis of a research study that reports patient-oriented outcomes, such as improvement in symptoms, quality of life, or mortality; is free of important methodological bias; and recommends a change in practice for many physicians. These poems are clinical action successes and are available by Daily Poem email.

In the U.S. and Canada, the so-called "Chosing Wisely" campaigns are seeking to engage physicians and their patients in a conversation about diagnostic tests and procedures in an attempt to lower and better health costs. For example, don't order a profile study when you only need a CBC. POEM CME credit is available through www.mcgill.ca/iam where the physician receives credit by having read and assessed the latest POEM. From the data submitted come the following wise suggestions:

In the field of MUSCULOSKELETAL Conditions...The first group of POEMS focuses on the treatment of meniscal tears, shoulder pain, osteoporosis, osteoarthritis of the knee, and low back pain. In 2017, a systematic review of nine clinical trials confirmed that arthroscopic meniscectomy for a degenerative tear is no better than a nonoperative approach involving exercise or physical therapy. Despite this knowledge, surgeons continue to perform the procedure in older persons.

Subacromial shoulder pain is common in middle-aged persons. It is located near the top and lateral side of the shoulder. A properly concluded randomized controlled trial showed no benefit to symptoms from adding radial extracorporeal shock wave therapy to supervised exercise therapy.

A 2017 guideline from the American College of Physicians recommends treating adults who have osteoporosis and no known fragility fracture with a bisphosphonate for no more than five years. This cohort study found a higher risk of clinical fracture among women who used bisphosphonates for 10-13 years compared with women who received bisphosphonates for two years.

Many patients with osteoarthritis of the knee self-medicate with glucosamine and chondroitin. An industry funded study of glucosamine plus chondroitin was stopped after six months when the data safety monitoring board judged the placebo intervention to be better at improving pain or function. Harms were similar in both groups. Because glucosamine and chondroitin are sold as herbal supplements and are not regulated by the FDA, some preparations may be more effective than others.

Given the muscle spasm that accompanies acute low back pain, a common practice is to prescribe muscle relaxants such as *Flexeril* or *Valium*. In persons already taking *naproxen* for acute low back pain, adding *Valium* does not improve disability or pain scores.

RESPIRATORY DISEASE: Two POEMs focus on screening for lung cancer and over-treatment of asthma. The National Lung Screening Trial found a reduction in disease-specific and all-cause mortality with lung cancer screening. Therefore it was voted in favor of lung cancer screening in select high-risk populations (older adults with at least a 30 pack-year smoking history,) although the AAFP found insufficient evidence to recommend screening. Some family physicians have started to offer lung cancer screening, but concern about the high rate of false-positive results (and other harms such as radiation exposure, overdiagnosis, and incidental non-lung findings) suggest that there is no single corrected choice. In a cohort of primary care patients in the VA system, 97.5% with an abnormal computed tomography result did NOT have lung cancer. This suggests that shared decision making is appropriately given the burden of false-positive results and subsequent follow-up. High-quality lung cancer screen decision aids for patients and clinicians are available from the Agency for Healthcare Research and Quality.

Uncertainty about a patients diagnosis of asthma should increase in the absence of formal testing with spirometry. In a population-based study of 613 adults, 18 years or older who were thought to have asthma, 203 patients had a formal diagnosis of asthma ruled out after spirometry and bronchial challenge testing. Those confirmed not to have asthma after spirometry or serial bronchial challenge testing had their asthma medications gradually tapered and discontinued, if possible, over four study visits. After one year of follow-up only six of these patients returned with respiratory symptoms and resumed treatment. The take-home message is to confirm the diagnosis of asthma in patients who have never undergone formal test-

ing.

INFECTIONS...In patients with respiratory tract infection it is tempting to treat symptoms of wheezing in the outpatient setting. A well designed study identified 401 patients with respiratory tract infection and at least one other lower respiratory tract symptoms (e.g., phlegm, chest pain, wheezing, shortness of breath). These patients had no evidence of chronic obstructive pulmonary disease and no prescriptions for asthma in the previous five years. They were randomized to 40 mg of prednisolone daily for five days OR placebo. Treatment yielded no difference between the groups.

For children with recurrent otitis media many of us were taught that tympanostomy tubes are indicated to prevent delay in language acquisition. However, a meta-analysis of 16 children who had otitis media with effusion found no hearing benefit from this surgical intervention after 12 to 24 months. Will this contribute to a change in otolaryngology referral for our preschoolers?

CARDIOVASCULAR DISEASE PREVENTION...Although niacin may increase high-density lipoprotein cholesterol levels, no patient oriented outcomes are improved by adding this treatment in the statin era. This was the finding of a meta-analysis of trials comparing niacin with placebo, either alone or in combination with statin treatment. However, in patients with intolerance to statins the American Heart Association still recommended that non statin drugs be considered. A new guideline recommended that adults without a history of CV disease use a low to moderate-dose statin for the primary prevention of CVD events and mortality when all of the following criteria are met: They are 40 to 75 years of age; they have one or more CVD risk factors (dyslipidemia, diabetes, hypertension or smoking; and they have a calculated 10-year risk of a CV event of 10% or greater.

Many persons 65 to 74 have an estimated 10-year CVD risk greater than 10, using the Framingham calculator. In a recent study there was no benefit to statins for primary CV prevention in persons 65 to 74 years of age. This finding with the absence of direct trial evidence of benefit from statins for primary prevention of CVD in older persons, may have an impact on future guidelines. For now, a shared decision about initiating statin treatment in patients older than 65 and no clinically apparent coronary disease seems most reasonable.

Miscellaneous: Adding prednisone to antihistamines offers no added benefit for the acute treatment of simple urticaria. In a recent trial 100 adults were treated with the histamine *Xyzal*, 5 mg daily for 5 days, and randomized to additionally receive placebo or prednisone, 40 mg daily for four days. On follow-up, 62% of patients treated with antihistamine/prednisone and 76 receiving antihistamine/Placebo were asymptomatic (difference not significant).

Other clinical action to "De-Adopt:" Annual screening chest x-ray—*this doesn't reduce lung cancer mortality*. More than 6 months of clopidogrel after stent. *24 months of clopidogrel after stent is no better than six months*. Antihypertensive treatment for mild hypertension. *Treatment for mild hypertension is ineffective*. Routine treatment without a discussion about prognosis of warts in children. *Cutaneous warts in children; half disappear within a year*. Steroid injection for lateral epicondylitis. *Steroid injection for lateral epicondylitis worse than saline after 1 year*. Testosterone for erectile dysfunction treated with sildenafil. *Testosterone does not improve the effectiveness of sildenafil (it may however, increase the desire)*. Cholecystectomy for asymptomatic gallstones. *Asymptomatic gallstone rarely lead to cholecystectomy*.

CONCLUSIONS: The analysis of physician rating of POEMs in a CME program reveals the potential to identify candidate clinical topics relevant for campaigns such as "Chosing Wisely." This novel process can provide an alternative source of topics to inform the typical expert panel approach. The topics identified can also be used to remind clinicians of actions they can consider de-adopting from routine practice.



The cause of most brain tumors is unknown. Uncommon risk factors include inherited neurofibromatosis, exposure to vinyl chloride, Epstein-Barr virus and ionizing radiation. The evidence for mobile phones is not clear. The most common types of primary tumors in adults are meningiomas (usually benign), and astrocytomas such as glioblastomas. In children the most common type is a malignant medulloblastoma. Diagnosis is usually by medical exam along with computed tomography or MRI. This is then often confirmed by a biopsy. Based on the findings, the tumors are divided into different grades of severity.

Treatment may include some combination of surgery, radiation, and chemo. Anticonvulsant medication may be needed if seizures occur. Dexamethasone and furosemide may be used to decrease swelling around the tumor. Some tumors grow gradually, requiring only monitoring and possibly need no further intervention. Treatments that use a person's immune system are being studied. Outcome varies considerably depending on the type of tumor and how far it has spread. Glioblastomas usually have poor outcomes while meningiomas usually have good outcomes. The average five-year survival rate for brain cancer in the USA is 33%. (Does not include glioblastomas.)

Secondary or metastatic brain tumors are more common than primary tumors, with about half of metastases come from lung cancer. Primary brain tumors occur in around 250,000 people a year globally, making up less than 2% of cancers. In children younger than 15, brain tumors are second only to acute lymphoblastic leukemia as the most common form of cancer.

Signs & Symptoms...Headaches as a result of raised intracranial pressure can be an early symptom. Headaches worsened by Valsalva maneuver, headache causing awakening from sleep, new headache in the older population, progressively worsening headache, or patients who do not fulfill the strict definition of migraine.

Location specific symptoms...The brain is divided into 4 lobes and each lobe has its own function. The location of the tumor is often linked to the symptoms experienced but each person may experience something different.

Frontal lobe...tumors may contribute to poor reasoning, inappropriate social behavior, personality changes, poor planning, lower inhibition, and decreased production of speech (Broca's area),.

Temporal lobe: Tumors in this lobe may contribute to poor memory, loss of hearing, difficulty in language comprehension (Wernicke's area).

Parietal lobe: Poor interpretation of languages, decreased sense of touch and pain, and poor spatial and visual perception.

Occipital lobe: Damage may result in poor or loss of vision.

Cerebellum: Poor balance, muscle movement and posture.

Brain stem: Difficulty in swallowing and abnormal heartbeat.

Glioblastoma, also known as **glioblastoma multiforme** is the most aggressive cancer of the brain. Initially symptoms are non-specific and include headaches, personality changes, nausea and symptoms similar to those of a stroke. Worsening of symptoms often is rapid. This may progress to unconsciousness. Glioblastomas represent 15% of brain tumors. The diagnosis typically is made by a combination of CT scan, MRI scan and tissue biopsy.

Treatment involves surgery, after which chemo and radiation are used. The medication temozolomide is used frequently as part of chemo. High dose steroids may be used to help reduce swelling and decrease symptoms. It is unclear whether trying to remove all or simply most of the cancer is better.

Despite maximum treatment, the cancer usually recurs. The most common length of survival following diagnose is 12 to 15 months with fewer than 4% of people surviving longer than 5 years. Without treatment, survival is typically 3 months. It is the most common cancer that begins within the brain and the second most common brain tumor, after meningioma. About 3 per 100,000 people develop the disease annually. It most often begins around 64 years of age and occurs more commonly in males. Immunotherapy is being studied with promising results. About 5% develop from another type brain tumor known as a low-grade astrocytoma.

Uncommon risk factors include genetic disorders such as neurofibromatosis, previous radiation therapy, smoking, pesticides and working in

petroleum refining or rubber manufacturing. Glioblastoma has been associated with the viruses SV40, HHV-6 and cytomegalovirus.

Cellular origin is unknown. Because of the similarities in immunostaining of glial cells and glioblastoma, it has been assumed that gliomas originate from glial type cells. However, more recent studies suggest that astrocytes, oligodendrocyte progenitor cells and neural stem cells could also serve as the cell of origin.

Glios are usually found in the cerebral white matter and grow quickly and can become very large before producing symptoms. Death is usually due to widespread tumor infiltration with cerebral edema and increased intracranial pressure.

Age of under 50 is linked to longer survival as is 98% resection and use of temozolomide.

THE "MURPHY DRIP"

As presented on MARCO Grand Rounds, June 3, 2018

Nutrient enema, also known as feeding per rectum, is an enema administered with the intent of providing nutrition when normal eating is not possible. Although this treatment is ancient, dating back at least to Galen and a common technique in 19th century medicine, nutrient enemas have been superseded in modern medical care by tube feeding and intravenous feeding.

A variety of different mixes have been used for nutrient enemas throughout history. It is likely, however, that because the rectum and lower digestive tract lack digestive enzymes, it is likely that only the end-products of normal digestion such as sugars, amino acids, salt and alcohol, will be absorbed. This treatment was given to US President James A. Garfield after his shooting in 1881, and is asserted to have prolonged his life.

When the U.S. Senate published an unclassified summary of its 6,000 page classified report on the CIA's use of torture, its previously unknown use of "rectal rehydration" for punishment and torture became apparent.

A Wisconsin surgeon in the early 20th Century, John B. Murphy (1857-1916) introduced the "Murphy Drip" which is the installation of normal saline into the gut or urine bladder for treatment of bladder hematomas and dehydration which is still sparingly in use today.

The idea of cramming food and liquid up someone's backside against his will is so crude and idiotic that it comes off as a sort of frat-boy prank gone wrong. Then came coffee enemas....

More Letters to the Editor.....

From: Jerry N4TSC...I try to contribute during Grand Rounds



But there is a 20-second delay (using the Computer) and I cannot shoehorn my comments in so I thought we could discuss "What is the value of pharmaceuticals advertising on TV and in the print media."

What is your Opinion?

PROCALCITONIN AS A SEPSIS BIOMARKER.

During the course of evolution, our immune system has eventually developed to deal with infectious pathogen invasion by various host defense mechanisms. Inflammatory response is one of the primary responses to a microbial invasion which leads to the systemic illness which is referred to as sepsis. Its severity correlates with mortality. There is an alarming number of 18 million new cases reported each year worldwide with mortality rate ranging from 30-50%.

Current targeting conventional bio markers (C-reactive protein, white blood cell, tumor necrosis factor, interleukins, etc.) are non-specific for diagnosing sepsis. Procalcitonin (PCT), a member of the calcitonin family could be a critical tool for the diagnosis of sepsis. But to distinguish between bacterial versus viral infections, procalcitonin alone may not be effective. Rapid elevation in the concentration of procalcitonin and other newly emerging biomarkers during an infection and its correlation with severity of illness make it an ideal biomarker for bacterial infection. Besides this, the procalcitonin levels can be used for monitoring response to antimicrobial therapy, diagnosis of secondary inflammations, diagnosis of renal involvement in pediatric urinary tract infection, etc.

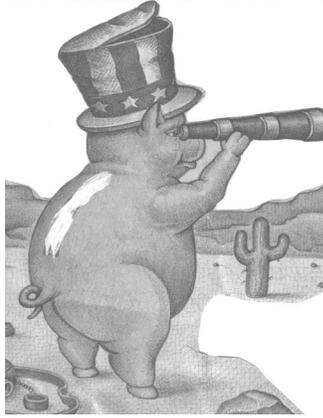
Conclusion: Further studies are still needed to better understand the application of PCT in the diagnosis of sepsis, differentiating between microbial and non-microbial infection cases, and determining the therapeutic approaches for sepsis.

NEW FACES* for MARCO & RENEWALS, as of 9/10/18

Arthur Kahn, W6NJY
 Larry Walker, K4KZA
 Darrell Laughlin, W8EYE
 Ken Bertka, K8KRB
 Wm. Hablitzel, K8WEH
 Detleff Olson, KD8EFM

Expressed Interest:
 Martin Diamond KA1WBN
 Chris Davis, W8PJQ

(All dues are due January 1.)



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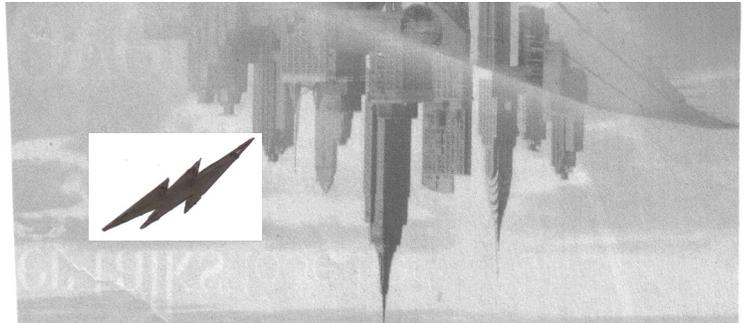
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113th
 Edition
 (2000-2018)
 Oct. 2018