

Bovine Colostrum and Immune Modulation: Managing Viral Threats with PRPs

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Immune modulation is the most significant factor in whether a patient recovers from a life-threatening viral infection. Simply put, an individual's immune system, when functioning optimally, has the ability to fight off infection(s). From influenza to HIV/AIDS to hemorrhagic fevers, the active components in bovine colostrum possess real promise in the fight against these and other viral infections. Colostrum's antiviral activity is due to its antibodies, lactoferrin, lactoperoxidase, lysozyme, and other immune factors which bind to pathogens and destroy their cell membranes or compete for binding sites on the intestinal wall.^{1,2} Even more significant are the proline-rich polypeptides (PRPs), which play a major role by modulating the activity of the immune system. PRPs stimulate immune system activity when needed to fight off an infection or quell its activity to prevent tissue damage once the infection has been defeated.³⁻⁵

Lactoferrin Peptides

Lactoferrin is an iron-binding protein with many functions and is part of the body's innate, nonspecific immune system that helps the body combat pathogens of all varieties. Lactoferrin's primary mechanism is blocking the entry of viruses into target cells by competing for binding sites on the cells or by binding to viral proteins to inactivate them so that macrophages and other scavenger cells can dispose of them. It also

acts as an immune modulator to help stimulate the immune system to respond to infections.

Proline-Rich Polypeptides (PRPs)

PRPs are small chains of 10 amino acids or fewer, notably proline, that enhance the ability of the thymus gland to release factors that help regulate immune functions in the body. Specifically, certain T-cells, called TH1 helper cells, are antagonistic to the activity of TH2 helper cells that promote certain functions of B lymphocytes. PRPs can induce a shift from a predominantly humeral immune response to a more protective cellular response described as a "TH2 to TH1 shift."⁶ In doing so, the immune system becomes more effective in fighting viral infections. Whole bovine colostrum and specifically PRPs have been shown to have antiviral activity against adenovirus, alphavirus, dengue virus, echovirus, Epstein-Barr virus, enterovirus 71, hantavirus, hepatitis C virus, herpes viruses, HIV-1, human papilloma virus, influenza, Japanese encephalitis, measles, poliovirus, respiratory syncytial virus, rotavirus, St. Louis virus, West Nile virus, and yellow fever virus.⁶

PRPs can be classified into three distinct classes, of which the PRP-2s and PRP-3s are the most immunologically active. They induce the growth and differentiation of B-cells; increase the permeability of the blood vessels in the skin to allow

killer cells to move into the tissues; and induce leukocyte proliferation. PRPs also induce the differentiation and maturation of monocytes and macrophages, cells which penetrate the connective tissue outside the blood vessels in search of pathogens. The mechanism by which PRPs act includes the stimulation of immune cells to produce various pro- and anti-inflammatory cytokines which control the immune response. PRPs can stimulate the production of tumor necrosis factor-alpha (TNF- α), which is the cytokine that controls the entire inflammatory cascade of cytokines that are secreted when the immune system is mobilized to fight infection, and gamma interferon (INF- γ), another major cytokine that interferes with the ability of pathogens, especially viruses, to replicate. PRPs have been shown to stimulate the production of INF- γ in white blood cells, peritoneal cells, and cells of the placenta and amniotic membrane. The so-called immune cascade is a complex series of chemical events that mobilize immune cells to move to the site of the infection and attack any pathogens that they encounter.

Clinical Studies of Colostrum and Colostrum-Derived PRPs

Clinical application using PRPs to treat infectious diseases has been limited, yet data from the trials with HIV/AIDS patients in Africa and influenza patients in Italy have been



Living in Today's World Requires a Strong Immune System



Without a doubt, a strong immune system is vital to surviving the onslaught of new and more virulent pathogens which have successfully adapted to resist our current drugs or for which no vaccine exists. Stress, poor nutrition, unhealthy behaviors, and increasing levels of pollution and toxins in the environment weaken the immune system, thereby making humans more susceptible to pathogens. An unbalanced immune system is a green light for infection and disease. On the other hand, a healthy, balanced immune system provides the best prophylaxis against these invaders. Proline-rich polypeptides derived from bovine colostrum and lactoferrin are essential to immune modulation and managing viral threats.

Viralox® is a Natural Solution which is Safe & Easy to Use

The active ingredient in Viralox, Lactopeptide, is a proprietary combination of PRPs and lactoferrin peptides. This unique bioactive combination of PRP-2 peptides and lactoferrin has been clinically proven to eliminate infections, especially viral infections. The antimicrobial PRP-2s stimulate the immune system to fight off viral infections and lactoferrin blocks the viruses from entering healthy cells.

Viralox has been clinically shown to be effective against a wide range of viruses including Herpes, Influenza, Human Papilloma, Rotavirus, Polio, Adenovirus, Hepatitis C, Hanta, Respiratory Syncytial, Alpha viruses such as Semliki Forest and Sindbis, and Enteroviruses such as Enterovirus-71, EpsteinBar, and Cytomegalovirus. Viralox is effective against a broad range of other pathogens including bacteria, yeast, and fungi.

Viralox helps:

- Block viruses from binding to healthy cells, thereby preventing infection and

reducing viral replication.

- Increase Natural Killer (NK) cell activity which removes infected and abnormal cells.
- Regulate cytokine production to suppress an overactive immune system or stimulate an underactive immune system
- Increase T-cell production
- Produce immunity to viruses and activate memory cells to shorten response time, if a future viral attack occurs
- Assist the immune system to adapt to viral mutations

Viralox is made from the highest quality colostrum. It is produced year-round from pasture-fed cows in the Southwest United States, and the colostrum is processed at the only processing plant specifically designed and built to process colostrum. Viralox is supplied as a liquid spray which is readily absorbed in the bloodstream with 3 sprays to the back of the throat. Viralox is convenient to use and safe for all ages. Additionally, Viralox is easy and fun for children to use with no pills or bad tasting liquid to swallow. Since it is a nutritional supplement, no prescription is required.



Daily supplementation with Viralox can help modulate or balance the immune system to help individuals better deal with challenges that disrupt the homeostasis of the immune system. Viralox provides the unique support needed to survive viral and other

infections for which there is no other effective defense. It helps the body heal itself by supporting its own natural defenses. The effectiveness of its active compounds has been proven in hundreds of clinical and scientific studies and published in peer reviewed journals.

*Professional information and clinical references available at ColostrumTherapy.com.
Consumer library of information available at theCenterforNutritionalResearch.org.*

According to renowned holistic chiropractor, Dr. Bruce West. "Viruses and parasites can cause anything."

He recommends treating patients with a serious or life threatening condition as one caused by either a virus or parasite. Dr. West always uses an anti-viral or anti-parasitic protocol when treating his own patients.

These conditions include:

- 1) Viral infection of any kind: HIV, Hepatitis, Colds, Flu, Herpes I and II, cytomegalovirus, hantavirus, etc.
- 2) Problems of the cervix, genital warts, or cervical dysplasia.
- 3) All cancers, especially leukemia, bone marrow cancer, prostate cancer, cervical, ovarian and uterine cancer.
- 4) Chronic Fatigue Syndrome, fibromyalgia, and mononucleosis.
- 5) Intestinal problems, including colitis, Crohn's disease and colon cancer.
- 6) Heart disease caused by infection.
- 7) Sudden and difficult arthritis cases, especially psoriatic and rheumatoid arthritis.
- 8) Parkinson's, where doctors are not 100% sure of the diagnosis, since viruses can mimic Parkinson's nearly identically.
- 9) Any undiagnosed infectious condition, particularly one that is resistant to treatment.

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extraordinary. Several independent trials utilizing a concentrated oral PRP and lactoferrin mouth spray (Viralox) tested the effectiveness in HIV/AIDS patients, particularly people living in areas of the world where antiretroviral treatments are unavailable.⁷ Preliminary phase I studies at the Infectious Disease Clinic in Dayton, Ohio, showed promise in increasing or normalizing CD4+ T-cell counts. Phase II studies were conducted in Kenya and Nigeria with larger patient groups. Patients took three sprays (2 ml total) every 4 hours. Results showed increases in CD4+ T-cell counts to normal or near normal levels; reduction in viral loads; and the remission of HIV/AIDS-related physical symptoms (nausea, vomiting, and diarrhea) in most patients. Within days, there was a reduction of clinical symptoms, and within 6 to 12 weeks of treatment, there were significant weight gains (up to 5%). Patients taking Viralox performed much better in terms of quality of life than patients on antiretroviral drugs. Phase III studies are ongoing in India.

The HIV/AIDS studies suggest that even in the “worst of the worst” viral infections, PRPs could return the human immune system to normal functioning, such that it is able to successfully fight off viral invaders. The ability of PRPs to stimulate an otherwise insufficient immune response by inducing the production of new helper T-cells appears to enable an HIV/AIDS patient’s immune system to recover sufficiently so that it can fight HIV on its own. Researchers concluded that an oral PRP spray treatment could either be an alternative treatment or adjunct treatment in HIV/AIDS patients. The benefits of PRPs in oral spray form include convenience, easy administration, low cost, no side effects, and safety for all ages.

An epidemiological study in San Valentino, Italy, investigated the effectiveness of 2 months of oral whole colostrum supplementation on the incidence of seasonal influenza in both healthy and high-risk cardiovascular individuals.⁸ After 3

months of follow-up, the incidence of complications and hospital admission from influenza was higher in the group that received only a vaccination compared with the groups that received either colostrum or colostrum plus vaccination. Individuals who did not receive colostrum also experienced three times more days of flu symptoms. Researchers concluded that colostrum, both in healthy subjects and high-risk cardiovascular patients, provided at least three times more protection against the flu than vaccination. A later study evaluated the efficacy of oral colostrum and a probiotic supplement in the prevention of influenza compared with vaccination. Similar results were obtained. Individuals receiving either colostrum plus probiotics or colostrum plus probiotics plus vaccination fared better than those receiving vaccination alone or no treatment at all. They experienced fewer incidences of flu and fewer flu days. Those receiving a vaccination

had twice as many episodes of flu than those receiving the colostrum and probiotic supplement.

The influenza studies suggest that whole colostrum has activity against the numerous viruses that cause seasonal influenza. This is good news for individuals who oppose vaccination. Another added benefit is that supplementing with whole colostrum is cost effective, particularly when considering the financial cost of decreased workplace productivity and lost wages.

Use of Colostrum and Colostrum-Derived PRPs in Medical Practice

We have just finished a review of our first 12 months’ pediatric experience with PRP spray (Viralox®) and the review confirms our initial feelings. Eighty-eight children who used PRP daily at



EDTA & Glutathione synergy

(3X more toxins);
Full EDTA line
(500mg,
1000mg,
2000mg)

Glutathione Breakthrough

(1500mg)
strongest ever

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with every EDTA products

Lowest retail
Open a wholesale account
Drop shipping option (from Michigan)

the recommended doses for six or more months were compared to the same aged and same sexed children who did not use PRP, and their illness and antibiotic use were compared. We found in this retrospective study a 74% reduction in reported illness and an 84% reduction in antibiotic use. Using any measure, these are very significant results. No untoward reactions were reported. We have started to review the costs of the illness/antibiotic saved by the use of PRP. Initial results indicate over \$25,000 saved in the user group in medical care, office visits, and drug costs. Again, these results are of major consequence and show the use of PRPs not only improves the quality of life for the child and his/her family, it makes sense economically.

~David M. Markowitz, MD, Pediatrician

Viralox's PRPs is being heralded as the most exciting discovery in immunology to come along in decades. Taking PRPs is like downloading immune information directly from the cow's immune system to ours. It gives our immune army generals' classified information about the invading enemy. It's completely different from any mineral, vitamin or herb; it's immune intelligence. As a physician, it is easy to tell my colleagues about this product that is scientifically based and so effective. There are hundreds of scientific studies backing up the scores of personal experiences about PRPs. I believe PRPs are, without a doubt, the greatest discovery of the century in supporting and modulating the immune system. I believe a strengthened immune

system will be the primary way to stay well in the future. This nutrient can affect the immune system like nothing else can.

~Robert Robertson, MD

The use of a general PRPs preparation is well justified for preventative use. Much of what we have seen in the cases of AIDS and even the flu is that it is not the primary infection that kills, but rather the secondary, opportunistic infections that destroy the weakened individual.

~William Hennen, MD

Protecting Health-Care Providers

By virtue of their professions, health-care providers are bombarded by infectious agents, and among the many pathogens that pose the biggest threat to well-being, viruses are preeminent. Antibiotics and antiparasitics are effective against their respective pathogens, but most viruses have no known treatment, except for allowing the human body to fight them off. Compounding the problem is that many health-care providers come to work when they are ill, despite knowing the well-established link between sick health-care workers and the patients whom they care for. As many as 80% of physicians and 70% of medical residents report going to work ill.⁹

Additionally, in the emerging Ebola crisis, it appears that the immune system is no match for the virus. Ebola is a high-mortality disease, depending on where a patient lives, according to the World Health Organization.¹⁰ In the absence of a widely available or proven Ebola vaccine, bovine colostrum with liposomal delivery and a concentrated PRP spray are the best defense to stay healthy naturally,

for who will take care of patients if health-care providers are too ill themselves?

Conclusion

Living in today's world requires a strong immune system. In the third millennium, medicine is confronted by new and more virulent pathogens either that have adapted to resist our current drugs or for which no vaccine exists. Stress, poor nutrition, unhealthy behaviors, and increasing levels of pollution and toxins in the environment weaken the immune system, thereby making humans less effective to defend against them. When the immune system becomes unbalanced, infection and disease get the green light. On the other hand, a healthy, balanced immune system provides the best prophylaxis against illness. Bovine colostrum and the proline-rich polypeptides derived from it are essential to good health in today's world. PRPs are an alternative to conventional pharmaceutical drug-based medicine and provide hope in the face of conditions that are either untreatable or difficult to treat.⁶

Professional information and clinical references available at ColostrumTherapy.com. Consumer library of information available at the CenterforNutritionalResearch.org.

Notes

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Douglas Wyatt is the founder of Sovereign Laboratories LLC, a Sedona-based company dedicated to developing natural products that provide the public with the best solutions for optimal health. He is honored to be listed as the leading expert in colostrum and is credited with reintroducing bovine colostrum into human use. Additionally, he serves as the research director of the International Center of Nutritional Research, a not-for-profit institute dedicated to nutritional health, and is one of the leading figures in the natural products industry. Doug is a leader in the research and a proponent of colostrum's unique and powerful healing components that show incredible promise for turning the tide on the prevention and treatment of the world's increasing chronic disease endemic. As a publisher, author, writer, scientist, and public speaker, Doug has appeared nationwide on television and radio shows and at health conventions worldwide. He is dedicated to the prevention of chronic disease through natural nutritional intervention and is working with the WHO (World Health Organization) and other internationally recognized research organizations on clinical trials on HIV/AIDS, other infectious disease, autoimmune disease, and bowel health issues.