

Albumin Concentration Controls Cancer

Kenneth Seaton, DSc

Washington, DC

The JNMA published an important paper in 1993 that showed the astonishing relationship between poverty and the incidence of cancer. [Sterling T, Rosenbaum W, Weinkam J. *Income, Race & Mortality*, JNMA 1993;85:906–911.] The authors, Sterling, Rosenbaum and Weinkam, summed up their research by stating; “*Poverty is associated with increased risk of mortality from both malignant and non-malignant causes and is no respecter of race.*” The fact that African Americans represent a high proportion of those living in poverty explained why standardized mortality ratios for certain diseases were up to 20 times higher in African American males. The authors noted that poor nutrition and lack of medical support partially explained this association, yet it remained unclear why poverty should be associated particularly with such a dramatic increase in cancer.

The JNMA showed courage and wisdom in publishing my response. [Seaton K. *Wealth & Hygiene*, JNMA [letter], 1994;86:327,356,368,372.] During the last 18 years of conducting a longitudinal study with more than 20,000 clients following an advanced personal hygiene regime specifically designed to clean the finger/thumb nails, eyes, and nasal passageway, the link between hygiene, albumin concentration, and cancer emerged.

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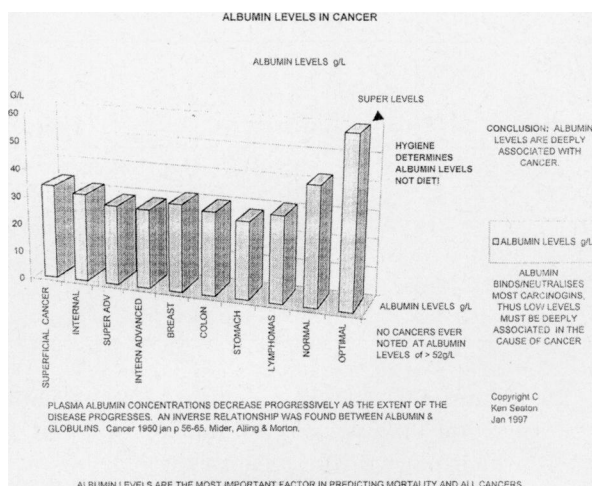
HISTORY

Historically, the great Ignaz Semmelweis and Oliver Wendell Holmes have returned with a vengeance, born out of the abuse they suffered from their peers when they proposed that hygiene could revolutionize hospital and medical care. Today, they would be delighted to see that hygiene may solve cancer. In retrospect, the link between hygiene and cancer was no more than common sense. The famous London surgeon Sir Percival Pott (1714–1788) instituted thorough washing of the skin and better hygiene, which virtually eliminated the common cancer of chimney sweeps. My studies now highlight that the standard of personal hygiene is the most important factor in most cancers, simply because it determines the concentration of albumin and the albumin/globulin A/G ratios.

ALBUMIN AND CANCER

A marked depression of serum albumin in the presence of various progressive cancers has been well recognized since at least 1950.¹ Figure 1 was formulated from the results of Mider, Alling and Morton.

It is also well recognized that restoration of albumin profiles usually leads to full remission. When albumin falls, it causes a relapse. This is clearly demonstrated in Hodgkin’s disease.² It is a “Devil’s Circle” in that low albumin sets the scene for cancer, and that cancer further lowers albumin. My studies during the last 18 years support that when albumin levels are restored and *maintained* (>47 g/L [4.7 g/dL]) with an A/G ratio of >1.8), there



is usually full remission or at the very least stabilization, and in all forms of cancer. This is valid in all ages and racial groups. The probability of error is <1%.

RAISING ALBUMIN CONCENTRATION

Low albumin levels cannot be raised and maintained, particularly in oncology patients, even towards normal concentration (42 g/L [4.2 g/dL]), by diet, supplements, or infusion. Even parenteral nutrition, strenuous enough to cause a gain in total body weight, is not effective.³ It is very clear that the approach to raising serum albumin, particularly in cancer patients, via nutrition or infusion, is the “ultimate in metabolic misunderstanding.” This myth must be exposed.⁴ Infusion of albumin is futile because although it may at great costs raise albumin from 28 g/L (2.8 g/dL) to 50 g/L (5.0 g/dL), within a week, it is back to 26 g/L (2.6 g/dL), lower than before. Furthermore, hospital albumin is heated for 10 h and treated, thus losing its potential to bind carcinogens and nitric oxide (NO), and to stabilize cell growth.

WHY ALBUMIN IS REDUCED IN CANCER

At long last, the primary cause of low albumin, particularly in cancer patients, has been identified. It is a specific inhibition of albumin gene transcription by the tumor necrosis factor (TNF), and the level of messenger RNA in the liver can fall as much as 90%.⁵ This is normally part of the acute-phase reaction, brought about by cytokines, the primary one being IL-6. All of this is usually activated by infections. TNF is approximately one fourth the size

of albumin. TNF is produced by lymphocytes, endothelial cells, keratinocytes, and activated macrophages (TNF α is produced by macrophages; TNF β by lymphocytes; TNF α inhibits albumin transcription).

OBSERVATION IN 18-YEAR LONGITUDINAL STUDY

My studies during this 18-year observation highlight that lower socioeconomic groups have higher levels of stress on the immune system, resulting in elevated levels of globulins and lower levels of albumin, setting the scene for a range of malignancies. The higher levels of globulins arise because of elevated acute-phase proteins and immunoglobulins. African Americans comprise a large proportion of this group. [Blacks are well reported to have higher levels of globulins, averaging an increase ~3 g/L, with subsequent reduction of ~3 g/L albumin. This stress on the immune system sets the scene for a variety of cancers and other health problems, including high blood pressure. An overview of my research shows lower socioeconomic groups averaging albumin levels of 40 g/L (4.0 g/dL) with an A/G ratio of 1.3, middle-class 43 g/L and A/G ratio 1.6, and educated-class 47 g/L, A/G ratio 1.8. This is valid for all racial groups.] The basic cause of this stress is chronic infections and inflammation due to suboptimal personal hygiene. Let me repeat, the basic difference between socioeconomic groups is not genetics, not racial, not ethnic, not diet, not exercise; clearly it is the standard of personal hygiene. This is valid throughout the world, valid throughout history, and valid for every civilization.

There are numerous reasons why albumin is so important in cancer. A full list with references is available from The National Hygiene Foundation. [The papers entitled “Breast Cancer” and “Is Cortisol the Aging Hormone” by *Kenneth Seaton*, are available from The National Hygiene Foundation, ph: 1-888-247-5900.] A brief summary is as follows:

1. Albumin neutralizes and transports most common carcinogens including nitrosamines and aflatoxins.
2. Albumin stabilizes cell growth and DNA replication.
3. Albumin is the most abundant and versatile of all antioxidants.

4. Albumin protects tissues from most forms of radiation.
5. Albumin is the most important factor in waste removal and transport.
6. Cells grown in the presence of high levels of albumin last 10 times longer and none convert to cancer lines.
7. Albumin controls osmotic pressure.
8. Albumin maintains correct pH and buffers a range of biochemical changes.
9. Albumin transports and buffers sex hormone homeostasis, protecting against sex hormone induced cancers.
10. Albumin maintains cortisol homeostasis, buffering against all forms of stress.
11. Albumin is the most important factor in maintaining interstitial fluid stability.
12. Albumin transports and prevents drug overdose and side effects.
13. Albumin maintains calcium homeostasis.
14. Cancer cell lines are inhibited by high serum albumin concentrations.
15. Hypoalbuminemia is the most significant single marker and prognostic aide in most common types of cancer.
16. The liver, which manufactures albumin, despite insult by carcinogens, has probably the lowest incidence of cancer of all organs under normal conditions. Cancer of the liver is highly fatal because of failure to produce albumin.
17. Inducement of cancer in laboratory animals often requires administration of foreign albumin to induce an autoimmune response against native albumin before cancer can arise.
18. Germfree animals, have far lower globulins (less antibodies and acute-phase proteins), resulting in higher albumin, and are highly resistant to cancer and carcinogens.
19. The wasting (cachexia), so much a part of cancer, is singularly caused by falling albumin levels and cannot be arrested until albumin level is restored.
20. Numerous studies show a compelling relationship between low albumin and increased risk of cancer.
21. Albumin has strong antitumor activity in vitro and in vivo.
22. Analbuminemic rats and humans are highly susceptible to a range of cancers.

Table 1.

Total Proteins (g/L)	Albumin	Globulins	A/G Ratio	Stress
63	28	35	0.8	Very high
67	37	30	1.23	High
70	41	29	1.41	Medium
71	43	28	1.53	Normal
73	50	23	2.2	Low
75	56	19	2.95	Optimal

23. Albumin is essential for transportation, stabilization and delivery of nitric oxide (NO), which plays a role in an array of biological and physical processes. The donation and collection of electrons to and from cells may also occur via nitrosoalbumin.
24. Nature surrounds all eggs, seeds, amniotic, and cerebral spinal fluids, with a generous concentration of albumin. Leonardo da Vinci taught us all that "The genius learns from nature." The abundance of albumin is essential for growth, cell division, and stabilization of life.
25. All major studies, throughout the world, confirm that the level of albumin is the single-most important factor in determining mortality and morbidity from all causes, including all cancers.

All of the above reasons highlight why the concentration of serum albumin precedes and parallels most forms of cancer.

CONCLUSION

Medical practitioners are well aware that a decline in the circulating albumin level is a common feature in disease. J.A. Luetscher is famous for his saying: "The common denominator of almost every pathological state is a relative or absolute decrease in the serum albumin." (*Physiol Rev.* 1947;27:621-642). The albumin/globulin ratio is also an important clinical observation (see Table 1).

The reliable fact that "albumin concentration is the 'bell wether' of health," highlights that factors present in disease directly effect the formation of albumin. The two most important factors are (1) the acute-phase reaction, and (2) antibody formation. Both of these cause a change in osmotic pressure, which also governs the production and de-

struction of albumin. The powerful and reliable role of advanced personal hygiene in controlling these two factors, and osmotic pressure, has been totally overlooked. It would appear that the single largest mistake in medical history is the myth that serum albumin level is the result of protein dietary status. From this fundamental mistake, the wrong path has been taken, thus cancer has remained a mystery, rather than a simple biochemical relationship.

As young students growing cells in a laboratory in the classroom, we were all instructed that unless the medium contained sufficient quantity of good-quality albumin, the cells would mutate to cancer lines. The importance of good quality and high quantity of albumin in the medium is profound.⁶ During the last 18 years, a simple application of improved personal hygiene, particularly cleaning under and around the finger/thumb nails a minimum of five times a day and cleaning the front of the nasal passageway and eyes each morning via the advanced hygiene regime, can rapidly address the stress on the immune system, resulting in a marked reduction in the acute-phase response and the overproduction of antibodies. Simply, hygiene reduces globulin levels, thereby allowing higher albumin levels, whilst maintaining total proteins.⁷ Only ad-

vanced personal hygiene can maintain albumin levels of approximately 50 g/L (5.0 g/dL) with an A/G ratio of >2.0 throughout life, bringing security against all forms of cancer. This simple basic biochemical law remains valid even in cases of genetic predisposition to various forms of cancer. These findings have profound importance for the Black community.

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