



The Science, Studies and Sociology of the Abortion Breast Cancer Link

by Angela Lanfranchi, M.D.

Abortion is a causal factor in the development of breast cancer in the same way cigarettes cause lung cancer. Both put the users at higher risk, even though the majority will not be affected. Like cigarettes, which cause lung cancer to form in 15% of those who smoke, abortion causes breast cancer in about 5% of women who have an abortion. This results in approximately 10,000 cases of breast cancer attributable to abortion a year, approximately the same number as is caused by the inheritable BRCA gene. The vast majority of smokers never get lung cancer yet we tell the public not to smoke. Women considering abortion need to know about the abortion breast cancer link (ABC link) so they can give

an informed consent. Women who have had an abortion need to know they are at higher risk of showing symptoms of the disease earlier than other women so that they can be screened for breast cancer at an appropriate age.

This article will explain the breast physiology and the epidemiologic criteria supporting the ABC link and the sociologic factors which cause this risk to remain largely unknown to both medical professionals and the public.

Breast Cancer in U.S. Women

Only 15% of women with breast cancer have a family history of the disease. At most, 10% of women with breast cancer have inherited a faulty gene such as the BRCA gene. Yet over the last 30 years, the number of new cases of breast cancer has increased by 40%.

Most of this increase has occurred in the Roe v. Wade generation, i.e. those women of reproductive age when the ruling was made in 1973. These women were young during the time of the "Women's Lib" movement and the "sexual revolution." Many delayed child-bearing well into their thirties to pursue higher education and a career, widely using "the pill" so that sexual activity need not be postponed until marriage. When the pill failed, abortion

became the frequently chosen option. Abortion is a consequence of equality in pursuing the sexual license that men have traditionally enjoyed by being free of the worry of becoming pregnant. The tobacco industry's ad told us, "You've come a long way baby," and we have. Lung cancer rates were much higher in men than in women in the '70s; now we are nearly equal. The benzopyrenes in cigarette smoke not only increased lung cancer but also the incidence of cervical and breast cancer in women. The childless rate for women increased from 10% to 18% by the year 2000. Delayed child bearing, never having children, taking "the pill" and abortion as well as cigarettes are all well established risk factors for breast cancer, and can account for this increased incidence.

Relative Risk

Risk can be expressed in many ways. Relative risk (RR) is a useful way to compare different factors and is derived from epidemiologic studies. A RR of 1.0 means that factor is neutral or has no effect on risk. A RR of less than 1.0 means that a factor causes a decrease in risk. For example, a factor with a RR of .5 means that factor reduces risk by 50%. A RR over 1 means

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e-mail: info@abortionresearch.com

that factor increases risk. For example, 1.5 means 50% increase in risk and RR 2.0 means 100% increase in risk. Most women who hear that a risk factor has caused them to be at 100% increased risk think that this means they are 100% certain to get the disease. However, in regards to breast cancer, if a woman has no risk factors she has only a 3.3% risk of developing breast cancer. A factor which then increases her risk 100% causes her to have a 6.6% chance of developing cancer.

Cumulative Lifetime Risk

Many women have been alarmed by the widespread use of the statistic, cumulative lifetime risk of breast cancer. This is a statistically derived number that assumes all women will live to the age of 82 and not die of other causes before then. In 1975 the risk was one in 12 women would develop breast cancer. In 2004 that risk increased to one in seven, reflecting the increase in incidence of breast cancer over the last 30 years. However, it does not mean that if seven women are in a room one will now get breast cancer.

Three Major Influences on Breast Cancer Risk

The risk for development of breast cancer can be understood by considering three major influences: genetic factors and damage to the DNA, lifetime exposure to estrogen and breast lobule maturation.

Genetic Factors and Damage to the DNA

While it is true the root cause of all cancers is damaged genes, when considering breast cancer risk it is useful to realize that only 8% to 10% of all breast cancers occur because women inherited a faulty gene such as the BRCA genes from one of their parents.

Direct damage to the DNA (long strands of genes in the nucleus of the cell) can also be caused by large doses of radiation to the breast, such as when women are treated for Hodgkin's disease in the chest with radiation or have frequent X-rays over many years during treatment for a curved spine. These account for only a few percent of cancer cases. Benzopyrenes in cigarette smoke can damage breast DNA.

There is also the interaction of these two factors in regard to the timing of the exposures that impact risk. For example, exposure to radiation damages breast tissue most when the cells are actively developing and dividing, as when the breast is growing during puberty. For example, the atomic bomb radiation in Hiroshima caused breast cancers to form in teenagers who were exposed but did not affect post menopausal women. Benzopyrenes in cigarette smoke increase breast cancer risk in teenagers who have not had children by as much as 600%. Postmenopausal women who have had children do not have this increase in risk. Overall, these factors account for only approximately 10% of breast cancers in the population. Therefore, lifetime exposure to estrogen and breast lobule maturation accounts for approximately 90% of the other cases of breast cancer.

Lifetime Exposure to Estrogen

Estrogen is the major female hormone which makes women womanly. Without estrogen women would not have breasts or be able to bear children. It is difficult to grasp why such a beneficent hormone could also cause breast cancer. Yet one has only to remember that some of the most effective and used breast cancer treatments available are drugs which block the effect of estrogen or keep it from forming

in the patient in order to understand the large impact estrogen exposure has on the risk of developing breast cancer.

The class of anti-cancer drugs known as SERMs alter the effect of estrogen on breast cells. For example, Tamoxifen, a drug used both to treat breast cancer and prevent it, blocks estrogen receptors. Another class of drugs such as Arimidex blocks an enzyme aromatase from converting another hormone into estrogen. Before such drugs were available, breast cancer was treated by removing the patient's ovaries to decrease the estrogen in her body.

DES, diethyl stilbesterol, a potent estrogen used to prevent miscarriages, also increased the risk of breast cancer in the mother and the female child exposed in utero. In order to understand why lifetime exposure to estrogen increases breast cancer risk, it is necessary to understand its role as a mitogen and genotoxin.

Estrogen as a Mitogen

Estrogen in the presence of progesterone causes breast cells to undergo mitosis, i.e. multiply through division. Once a breast cell duplicates its DNA (long strands of genes in the nucleus of the cell) it will divide into two cells. While the DNA is duplicated, copying errors and translocations can occur resulting in cells with abnormal DNA called mutations. If a mutation is severe enough or if multiple mutations occur, a cancer cell may form.

Near the end of a woman's menstrual cycle, estrogen and progesterone levels are elevated causing milk duct cells to undergo mitosis. These facts account for many risk factors of breast cancer that can be summed up by noting that the more menstrual cycles a woman has in her lifetime the higher her risk for breast cancer. For example, early menarche

cancer. For example, early menarche (age at first menstruation) and late menopause result in more menstrual cycles and are factors which increase breast cancer risk. Late menarche and early menopause result in fewer cycles and decrease risk of breast cancer. Irregular cycles in the first few years after menarche result in lower breast cancer risk, due to fewer cycles and fewer ovulations. Teenagers may be treated with birth control pills to regulate their cycles, thereby increasing breast cancer risk.

Estrogen as a Carcinogen

Estrogen also causes breast cancer by directly acting as a carcinogen, i.e. by directly damaging DNA. The body makes metabolites of estrogen in the course of breaking down the hormone, eliminating its effect. Hormone levels in the body are tightly regulated on a daily as well as monthly cycle basis. One such metabolite of estrogen is catechol estrogen quinone (CE quinone). CE quinone directly damages DNA by pulling purine bases, components of DNA, out of the strands. Women with breast cancer have higher levels of CE quinone in their blood than women without breast cancer.¹

The primary natural source of estrogen in premenopausal women is the ovaries. A woman whose ovaries have been removed will have a lower risk of breast cancer. This may happen if a woman has her ovaries removed because of disease. There is also a peak of estrogen during the menstrual cycle that causes ovulation. When a woman is under stress, for example during marathon training or by extreme weight loss, she may not ovulate or may miss her cycles altogether reducing her breast cancer risk. During breast feeding a woman may also miss ovulation or cycles reducing breast cancer risk. The primary source of natural post menopausal estrogen is adipose

(fat) tissue. The aromatase enzyme system in adipose cells causes estrogen to be formed from another hormone, androstendione. Therefore postmenopausal obesity also increases risk for breast cancer.

Estrogen can also be had from sources outside the body, usually drugs and sometimes residues found in foods. About 75% of women have taken hormonal birth control in their lives. As explained in a later section on breast lobule maturity, this is especially potent in forming breast cancers when taken by teens or women without children. Most birth control pills contain estrogen and progesterone at high enough levels to largely suppress ovulation. One study showed teenagers who take birth control pills before a pregnancy have a 1000% increased risk of breast cancer. Injectable and implantable progestin-only drugs increase risk as would the hormones taken transdermally with a patch. Hormone replacement therapy also increases breast cancer risk commensurate with the length of time it was taken. Estrogen residues found in chicken meat were responsible for early menarche in teens increasing their breast cancer risk.

Estrogen has been listed as a carcinogen by the National Toxicology Advisory Panel of the National Cancer Institute since 2001 precisely because they felt women weren't being apprised of their risk of breast cancer sufficiently when hormone replacement therapy and birth control pills were prescribed. When scientists demonstrated that even breast cells that do not have estrogen receptors in them become cancerous when exposed to estrogen, they confirmed that estrogen is a direct carcinogen. The estrogen receptors do not need to be stimulated to mitosis to initiate a cancer. Estrogen can directly initiate cancer cells

to form. The age specific incidence curve for breast cancer underscores this fact, as the incidence of breast cancer does not start to increase until after puberty and rises sharply at the point when initiated cancers become clinically detectable, about ten years after menarche. The incidence does not lessen until after menopause.

This is why estrogen-containing drugs should not be used for most of their widely applied usages when there are other equally effective methods for treatment. Fosamax and Actonel can be used for osteoporosis. Heart attacks and strokes as well as blood clots in veins and lungs are increased by hormonal treatments. Acne can be treated with antibiotics. Irregular cycles in teens are normal and reduce cancer risk. Painful menstrual cramps can be treated with pain relieving anti-inflammatory drugs. Fertility can be controlled with natural methods such as tracking fertile days and abstinence or non-hormonal barrier methods. Cancer-causing drugs should be used only when no other methods or treatments are available.

Breast Lobule Maturation

The breast is the only organ that is not fully formed at birth. It does not start to fully develop until puberty when estrogen levels start to rise and the breast enlarges. However it does not fully mature until the end of a full-term pregnancy when it is capable of producing milk for a newborn.

To the eye, the breast merely enlarges during pregnancy. Microscopically, and more importantly, the breast actually changes its microscopic structure into cancer resistant type 3 lobules. This is why having a full-term pregnancy reduces a woman's risk of breast cancer and the earlier she does this in her reproductive life, the lower her risk of breast cancer. When a female child is born

she has only a few rudimentary alveolar buds. At the end of puberty, over 70% of her breast tissue consists of Type 1 lobules. These are units of breast tissue consisting of milk glands and a duct which are immature and incapable of producing milk. They are also the place where ductal breast cancers start. Ductal breast cancers account for over 80% of all human breast cancers. Not only do they look different anatomically, but they act different metabolically. For instance, they replicate their DNA faster than mature Type 3 lobules. This results in more copying errors and mutations than in Type 3 lobules. There is also a shorter time for the cell to repair the errors. After undergoing a full-term pregnancy, only a small percentage of the Type 1 lobules remain and over 70% of the breast tissue is now the cancer resistant Type 3 lobules. This is why a full-term pregnancy reduces breast cancer risk. It is also why the sooner a woman has a full-term pregnancy the lower her risk of breast cancer.

After a full-term pregnancy, further exposure to estrogen during her monthly cycles does not as adversely affect her breasts as would be the case if her breasts were still mostly composed of cancer-sensitive Type 1 lobules. If a woman has menarche at age ten and doesn't have a full-term pregnancy until she is 30, she has had 20 years of estrogen exposure by her cancer sensitive Type 1 lobules. If she has a full-term pregnancy at age 20, there will have been half the risk exposure and less cancer risk. If a woman remains childless for her entire reproductive life her breasts are exposed to elevated levels of carcinogens for over 30 years and her risk of breast cancer is greatly increased.

The effect of pregnancy hormones on the breast is different at different times during the pregnancy.

During the first two trimesters in the presence of rapidly rising levels of estrogen, the breast merely enlarges by increasing the numbers of Type 1 and 2 cancer vulnerable lobules. This is why premature deliveries before 32 weeks of pregnancy increases breast cancer risk. When the pregnancy ends at premature delivery, the breast has not matured into mostly Type 3 lobules resistant to cancer, but is now different than the pre-pregnancy state. There are now more Type 1 lobules in the breast and more places for breast cancer to start. This assumes that the hormonal status of the pregnancy is normal and resulted in a pregnancy that lasted at least 7 months.

However, some pregnancies end prematurely through spontaneous abortion or miscarriage. Most of these spontaneous abortions occur in pregnancies with low hormonal levels. Women will often report not having realized they were pregnant when they miscarried. They had not experienced the earliest signs of pregnancy such as sore and tender breasts or nausea as their hormonal levels were not elevated as in a normal pregnancy. Estrogen levels will rise even

before implantation and increase 2000% by the end of the first trimester. Doctors often measure estrogen levels when attempting to predict when bleeding during pregnancy will result in spontaneous abortion. If levels are below normal, the pregnancy is not healthy and the mother will miscarry.

This situation is very different than what occurs in induced abortions. Most induced abortions occur in normal pregnancies. Studies have shown that the longer a pregnancy exists before an abortion, the higher the risk of breast cancer. This is due to the same mechanism that causes increased breast cancer risk in premature births. After an induced abortion, the mother is left with more Type 1 and 2 lobules where cancers start than before she was pregnant. This causes her to be at increased risk for breast cancer. This is the basis for the independent risk of abortion and breast cancer.

There are also secondary reasons why induced abortion increases breast cancer risk. A woman who is pregnant and gets an abortion loses the protection against breast cancer a full-term pregnancy would have afforded her. She is exposed to very high levels of the mitogen and genotoxin estrogen even in early abortions. Abortions also increase the incidence of premature deliveries of subsequent pregnancies which in themselves increase breast cancer risk.

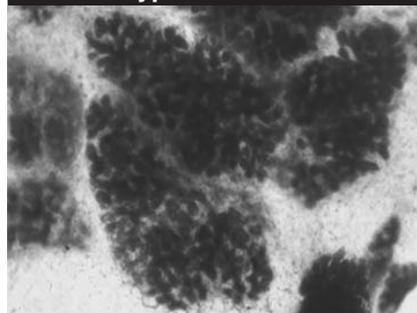
Summary

Abortion increases breast cancer risk through multiple mechanisms. Pregnancy exposes the woman to high levels of estrogen acting as a mitogen and genotoxin and induced abortion then leaves her breast with more places for breast cancers to start. She has a higher risk of subsequent premature deliveries which

Type 1 Lobules



Type 2 Lobules



a higher risk of subsequent premature deliveries which then increase her risk further.

Epidemiologic Support for the ABC Link

Epidemiology is defined as the study of disease trends in large populations. It is not intended to be the method to discover the cause of diseases. Scientists usually study causes of diseases with experiments and case studies of patients. Epidemiologic studies give scientists a place to look for corroboration. However, if epidemiologic studies are done and they meet certain criteria as a whole, the case for a causal relationship can be made.

Before any causal statements may be made that a factor is a cause of a disease, and not merely associated with it, strict criteria must be met. Just because a study shows a positive association of a factor with a disease, it doesn't mean that factor is the cause.

For example, large, statistically significant and reproducible studies might show that people who carry matches in their pockets have a higher risk of lung cancer. We know now that the cigarettes they light cause the lung cancer. Without the additional criteria of a plausible biologic theory of how the matches cause lung cancer, these studies, no matter how many are done, show only a positive association between matches and lung cancer. Knowing that matches were associated might lead scientists to investigate how the matches were used and discover the true cause of lung cancer.

Epidemiologic studies done concerning the ABC Link do show that they meet the criteria for abortion becoming a causal risk for breast cancer.

Criterion 1: Timing

The exposure to the risk must occur before the disease is detected, i.e., the abortion must occur before the breast cancers form. This may seem so obvious that it need not be mentioned. However, a well-known study, the 1997 Melbye study, violated this rule when it collected breast cancer cases from a registry starting in 1968 and abortion cases from a registry starting in 1973. Those cases of cancer from 1968 to 1972 should not have been included in the study.²

Criterion 2: The preponderance of studies showing a positive association

One or two studies can never be thought to prove a causal link. Out of 40 world-wide studies done to date, 27 show a positive association.

Criterion 3: Statistically significant studies

Scientists require 95% certainty that the study results were not obtained by chance alone. 17 statistically significant studies show the ABC Link.

Criterion 4: Studies show a large relative risk, greater than 3.0

If there is only a 10% increase in risk, it is difficult to say the risk is causal. Subsets of women show a greater than 200% increase risk in breast cancer with abortion.

Criterion 5: A dose effect is observed.

Based on biologic mechanisms, the more one is exposed to the risk, the higher the risk of the disease if a factor is causal. For example, the more cigarettes one smokes, the higher the risk of lung cancer. The longer one is pregnant before an abortion, thus increasing exposure to higher amounts

of estrogen, the higher the risk of breast cancer.

Criterion 6: Biologic plausibility

The biologic mechanism that explains the reason for the risk association must be biologically plausible. The physiology of the breast cancer link with abortion has been thoroughly explained in a previous section. Elevated levels of estrogen during pregnancy leave the breast with increased numbers of Type 1 and 2 lobules where breast cancers arise and there is no benefit of a full-term pregnancy maturing the breast with predominantly Type 3 lobules which are cancer resistant.

Criterion 7: Experimental studies

In 1980, Russo and Russo studied the effect of abortion on rats that were virgins or had had a full-term pregnancy. The aborted rats developed breast cancers at a much higher rate when given DMBA than virgins or rats that had had a full-term pregnancy.³

Criterion 8: Analogy

Similar exposures should result in similar effects. Premature deliveries before 32 weeks also double breast cancer risk because the breasts are left with more lobules where breast cancers can start.⁴ An abortion can be thought of as premature delivery by an abortionist.

Criterion 9: Coherence

The association of breast cancer and abortion should be in accord with the known natural history and biology of breast cancer. It takes an average of 8 to 10 years for one breast cancer cell to keep doubling so that it forms a tumor of clinically detectable size, about 1 centimeter. The time periods in studies should show the increase in breast cancers occurring in the time frame appropriate for

the development of breast cancer, i.e. at least 8 to 10 years after exposure.

Epidemiological Studies and the Abortion Breast Cancer Link

Some recent well publicized studies deny the abortion breast cancer link.⁵ The most recently well publicized study was published March 2004 in the journal *Lancet*.⁶ One of the authors quoted in a major Atlanta paper said, "Scientifically, this is really a full analysis of the current data." Nothing could be further from the scientific truth. There were many flaws in the study, three of which will be addressed here. (1) Selection bias occurred when 14 of 41 previously published studies were excluded for non-scientific reasons or simply not acknowledged to exist. The authors excluded 10 of 16 statistically significant studies linking abortion and breast cancer. If these 24 studies were combined they would show an 80% increase in breast cancer risk. (2) The authors also made an assumption of "recall bias" when their own study revealed an 11% increase in risk when retrospective studies were used. Recall bias assumes that women with breast cancer admit to having had an abortion history and women without cancer will lie and deny having had an abortion. Recall bias is an hypothesis which has never been proven to show a statistically significant difference in these groups even when explicitly tested. (3) An inappropriate comparison group was chosen. The authors compared apples and oranges when the effects of having had a pregnancy that ended in abortion were compared with the effect of "not having had that pregnancy." Once a woman has had a healthy pregnancy, however long, her breasts are different than before that pregnancy started. Pregnancy forever alters the breast and physiologically these women are as different as pre and post menopausal women. Just as

the effect of hormone replacement for post menopausal women is studied in relation to other post menopausal women who have no exposure to hormones, pregnant women who undergo abortion need to be compared to pregnant women who do not undergo induced abortion.

Another study published in the U.S. in 1997⁷ misclassified 60,000 women who had legal abortions as not having had abortions because the authors used abortion registries starting in 1973 instead of 1940. Yet even with this and other major flaws, the study showed a statistically significant increase in breast cancer risk in second trimester abortions. This fact was not mentioned in the conclusion of the paper which stated that there was no link between abortion and breast cancer.

The Sociologic Factors which have served to suppress the ABC link

There are many and interrelated reasons why the abortion breast cancer link has remained largely unknown, both in medical and public arenas. When something is not acknowledged to exist or deemed true when acknowledged by the medical profession, there is little hope the public will become aware of it. Dr. Oliver Wendell Holmes stated in 1869 while addressing the Massachusetts Medical Society that, "Theoretically medicine should go on its straightforward inductive path without regard to changes of government or to fluctuations of public opinion...the truth is that medicine, professionally founded on observation, is as sensitive to outside influences, political, religious, philosophical, imaginative, as the barometer to the changes in atmospheric pressure." Human nature has not changed. And despite the fact that today medicine is more scientific-

cally based than the primarily observational medicine of the past, Dr. Holmes is as correct today describing medicine in the 21st century as he was in his time. The political reality today is that it is not politically correct to say anything about the negative consequences of abortion. This has influenced medical organizations, physicians and texts to largely remain silent on the ABC link.

Medical Organizations

In fact, medical organizations exist today that are extremist in their positions concerning abortion. The American Medical Women's Association is one such entity. In November 1993, a position paper on breast cancer prevention states that women who have their first full-term pregnancy before 18 have a 75% reduction in breast cancer risk than women who delay pregnancy until age 30.⁸ Instead of making this fact widely known to women considering abortion, they state, "Clearly reproductive choice is a high priority in our society," and go on to propose research to invent a pill so that women can get the protection provided by pregnancy to reduce breast cancer risk. This organization is also against parental notification and for partial birth abortion. They support minors in their "right" to unfettered second trimester abortions that may result in death or lifetime injuries without the interference of parental advice. This organization is active in teaching medical students. By the year 2010, over 50% of physicians are expected to be women.

In a way that is analogous to the situation concerning the link between tobacco and lung cancer, large organizations such as the American Cancer Society and the National Cancer Institute deny such a link.⁹ Although the first study linking tobacco to lung cancer was published in the 1920s,

first study linking tobacco to lung cancer was published in the 1920s, these two organizations did not support the link for over thirty years despite the fact that many doctors such as Ochsner wrote on the subject widely. Political pressure from the tobacco lobby clearly pressured the National Cancer Institute (NCI) through its director, a former American Cancer Society president, to not acknowledge the tobacco/cancer link. The American Medical Association would not endorse the Surgeon General's warning on cigarette packs after receiving a tobacco industry "grant" for more research on the matter. Using many of the same reasons given in the past such as not having absolute scientific "certainty," the NCI has not warned the public of the ABC link even when the vast preponderance of the studies begun in 1957 supported the link.

Peer Pressure

Peer pressure may be the greatest influence that keeps the ABC link largely unknown. There is a loss of respect among colleagues who view those supporting the ABC link as outsiders going against the prevailing wisdom of the greatest authorities. This author has been labeled a "fear monger" on the front page of a large daily newspaper for including abortion as one of many risks in a booklet on breast cancer risks and prevention.¹⁰ Her work in making public service announcements has also caused front page coverage when a petition to remove the public service announcements, signed by the most prominent medical groups and authorities including the American College of Obstetricians and Gynecologists and New York State Medical Society, was given to a radio station.¹¹ As a poster presenter of a scientific paper, "Induced abortion as a Predictor for Her2(erbB-2/neu) overexpression in malignant breast tumors," at

the 2001 San Antonio Breast Cancer Symposium, this author was accosted during her session by the co-director of the program with the angry words: "You shouldn't use my meeting as a platform to hand out your anti-abortion literature!"

Economic loss is a reality if one supports the ABC link. Memorial Sloan Kettering Cancer Center gave way to the inducement of tobacco research grant money, firing a researcher whose work supported the tobacco lung cancer link.¹² This author has had both the threat and real loss of referral sources as a breast cancer surgeon. Another colleague lost a research job through a medical journal report in which his support for the ABC link was made. This author also is aware of NCI grant recipients who fear loss of grant money should they give public support to the ABC link.

There is also the "Semmelweis" phenomenon which operates not only in the medical field but other academic pursuits. Semmelweis made the observation that hand washing midwives had many fewer deaths on their maternity wards than the doctors' wards. After an experiment proved that hand washing by doctors reduced mortalities on their ward as well, Semmelweis was ridiculed and his ideas rejected. He lost his job and the respect of his colleagues. Only after his premature death in an asylum were his lifesaving ideas accepted. Physicians can not abide the thought that their widely held practices and beliefs have injured patients and caused their death, especially when made aware by one of the "least" of them. Semmelweis was a resident-in-training and a Jew.¹³ It is not those in academic medicine or in positions of power that promote the ABC link. Those scientists who present ABC link information are labeled right wing Christian conservatives whose "agenda" make

their findings biased. A Washington DC monthly magazine recently pilloried six such scientists about issues such as the ABC link and stem cell research. It was reported that their views had perverted their science.¹⁴

Political Correctness in Texts

Even textbooks have been tainted by political correctness. A table listing breast cancer risk factors in a standard text *The Breast*, by Bland and Copland list both birth control pills and abortion as having "no effect" on risk. This is despite a 24% and 38% increase in risk respectively in the text of the chapter containing the table. In fact the risk reported in the text was described as "worth it for the benefit of a convenient sure method of birth control." Convenient for whom? Would a 30-year-old woman really feel that way after losing her breast to cancer? In another table which lists strategies for prevention, the authors stated, "Early age at first birth reduces breast cancer... because of complex social changes needed...it has not been included in Table 5." There are also downright misleading wording. For instance, the following sentences: "The relative risk associated with induced abortions in nulliparous women was 1.3. Spontaneous abortions similarly were not associated with breast cancer risk." These statistics are in no way similar; induced abortion showed a 30% increase in risk while spontaneous abortions showed no risk at all.

Controversy in Medicine

The normal discourse in medicine when there is controversy on a scientific issue is to present arguments for both sides in texts and debate at scientific meetings. There has not been normal discourse concerning the ABC link. An extreme example of this occurred when a meta-analysis

was published in 1996 supporting the ABC link in Britain¹⁵. The editor of this journal felt so attacked after publication that he wrote in a subsequent editorial that although he was “pro-choice” that he was also “pro-information.” To this author’s knowledge, the pros and cons of the scientific evidence have never been debated at a mainstream medical meeting.

Fear of Litigation

In the U.S. two lawsuits have occurred, one settled and one ending in an “offer of judgment,” in which women who have not developed breast cancer prevailed because they were not warned of this risk by the abortionist. The medical malpractice carriers and abortion clinics paid for damage. With 46 million abortions since 1973 the number of plaintiffs would be enormous.

Ideology and the ABC link

Enormous pressure has been brought to bear against the ABC link. A liberal columnist bemoaned

that “research linking breast cancer to abortion keeps reappearing no matter how many scientists drive a stake through its heart.” She refers to the 2003 National Cancer Institute workshop in which 100 scientists reportedly were unanimous in their conclusion that there was no link between abortion and breast cancer. One might also remember the book “100 scientists against Einstein” that contained essays refuting relativity. Einstein’s response to a reporter on publication was that if it were not true only one scientist needed to have written a response.

There has been created a need in our society for “safe and legal” abortions. Even the Supreme Court has used the argument that the public good demands abortion as a back up for failed contraception. If abortion is shown to be unsafe and a cause of human cancer that has hurt women, would constraints on reproductive rights not follow? This fear has polluted the normal scientific discourse that is needed. Our human biology will not allow us to avoid the obvious. Breast

cancer and abortion are linked. Women know this on many levels. Rampant breast cancer seen in ever younger women will not allow this issue to be suppressed no matter how big the business of both abortion providers and breast cancer organizations that raise millions of dollars a year.

Angela Lanfranchi MD, FACS

Dr. Lanfranchi is a breast surgeon and Clinical Assistant Professor of Surgery at Robert Wood Johnson Medical School. She is on the Expert Advisory Panel for the New Jersey Board of Medical Examiners and a fellow of the American College of Surgeons. As a co-founder of the Breast Cancer Prevention Institute, she has lectured nationally and internationally to both lay and professional audiences. She has co-authored a booklet on Breast Cancer Risks and Prevention and produced a video on the abortion breast cancer link which features three women’s testimonies and an explanation of the biology and epidemiology. These resources are available through the institute at www.bcpinstitute.org.



References

- 1: K. Miller. Estrogen and DNA Damage: The Silent Source of Breast Cancer? *Journal of the National Cancer Institute*, 95(2), January 15, 2003.
- 2: M. Melbye, et al. Induced Abortion and the Risk of Breast Cancer. *New England Journal of Medicine*, 336(2), January 9, 1997, 81-85.
- 3: J. Russo and I. H. Russo. Susceptibility of the Mammary Gland to Carcinogenesis. *American Journal of Pathology* 100(2), August 1, 1980, 497-512.
- 4: M. Melbye, et al. Pre-term Delivery and Risk of Breast Cancer. *British Journal of Cancer* 80(609), 1999.
- 5: V. Beral, et al. Breast Cancer and Abortion: Collaborative Reanalysis of Data from 53 Epidemiological Studies, Including 83,000 Women with Breast Cancer from 16 Countries. *Lancet* 363(9414), March 27, 2004, 1007-1016.
- 6: D. Wahlberg. Study: Breast Cancer Not Tied to Abortion; Group Backs Up Institute’s Earlier Findings. *Atlanta Journal Constitution (GA)*, March 26, 2004, A9.
- 7: M. Melbye, et al. Induced Abortion and the Risk of Breast Cancer. *New England Journal of Medicine*, 336(2), January 9, 1997, 81-85.
- 8: www.amwa-doc.org position papers on reproductive health and breast cancer prevention.
- 9: D. Kessler. A Question of Intent. A Great American Battle with a Deadly Industry. 1st ed., New York: Public Affairs 2001.
- 10: T. Noble. Council Uses Funds for Pro-lifers’ Booklet. *The Age*, Melbourne, Australia, February 10, 2003, pg 1.
- 11: J. Franco. Abortion Ads Stir Debates. *The Record*, Troy, New York, November 29, 2001, pg 1.
- 12: D. Kessler. A Question of Intent: A Great American Battle with a Deadly Industry. 1st ed., New York: Public Affairs 2001.
- 13: A. Lyons and R. Joseph Petrucelli, II. *Medicine. An Illustrated History*. New York: Abradale Press, 1987.
- 14: C. Mooney. Research and Destroy. *Washington Monthly*. October 2004.
- 15: J. Brind, et al. Induced Abortion as an Independent Risk Factor for Breast Cancer: A Comprehensive Review and Meta-Analysis. *Journal of Epidemiology and Community Health* 50(5), October, 1996, 481-486.