

The Abortion-Breast Cancer Link: How Politics Trumped Science and Informed Consent

Karen Malec

Thirty years ago the U.S. Supreme Court first determined that abortion was a right inherent in our Constitution. That decision, *Roe et al. v. Wade*, gave women the right to obtain legal abortions in circumstances in which their lives were not endangered by their pregnancies.

A reason cited for the decision was that modern aseptic technique and antibiotics made it possible for abortions to be performed safely. The court's opinion of abortion safety might have been different if the justices had been aware of earlier epidemiological research supporting a relationship between abortion and breast cancer.

Epidemiologic Evidence of an Abortion/Breast Cancer Link

Two Japanese studies showed a positive association between induced abortion and breast cancer: a 1957 study reported a statistically significant relative risk of 2.61,¹ and a 1968 study found a relative risk of 1.51.²

A landmark 1970 study by MacMahon et al. showed that childbearing was helpful in reducing breast cancer risk. The study estimated that "women having their first child when aged under 18 years have only about one-third the breast cancer risk of those whose first birth is delayed until the age of 35 years or more." Their findings indicated that abortion might be an independent risk factor for the disease. Results "suggested increased risk associated with abortion contrary to the reduction in risk associated with full-term births."³

Soon after legalization, abortion became a common elective procedure and created a new field of medical research. Thirty-eight epidemiological studies exploring an independent link with breast cancer have been published.^{1, 2, 4-19} Twenty-nine report risk elevations. Thirteen out of 15 American studies found risk elevations.^{4, 6, 7, 11, 12, 14, 15, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100} Seventeen studies are statistically significant, 16 of which report increased risk.^{1, 9, 11, 12, 14, 15, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100} Biological evidence provides a plausible mechanism for this statistical association.^{4, 14-16}

Most medical organizations were silent about this research, but there was still enough concern about a causal relationship to lead scientists to publish another 36 studies after 1973, the year abortion was legalized. In 1973, the incidence of the disease was 82.6 per 100,000, and breast cancer was considered a disease of elderly women. By 1998, female breast cancer incidence increased more than 40 percent to 118.1 per 100,000,^{4, 5} and breast cancer became a young woman's disease.

Researchers from the National Cancer Institute (NCI), the Centers for Disease Control and Prevention (CDC), the American Cancer Society (ACS), and the North American Association of Central Cancer Registries collaborated on a troubling report on cancer status in the years 1973 through 1998, published in 2001.^{4, 5}

Significantly, the absolute numbers of reported excess cases agree with a prediction made in a 1996 review and meta-analysis.^{4, 6} Its lead author, Joel Brind, Ph.D., professor of biology and endocrinology at City University of New York's Baruch College, concluded from a review of the 2001 report: "Abortion can explain the entire rise in breast cancer since the mid 1980s, and it's not just because the rise is in women young enough to have had an abortion. It's also that the absolute numbers of increased cases fall within the range of the numbers we predicted in our 1996 meta-analysis" (Brind J, personal communication, 2002).

Brind et al. estimated that in 1996 an excess 5,000 cases of breast cancer were attributable to abortion, and that the annual excess would increase by 500 cases each year. They predicted 25,000 excess cases in the year 2036.

Among the three oldest age groups (50-64, 65-74, and 75 and older), only the 50-64 group had an increase in breast cancer rates between the years 1987 and 1998.^{4, 7} These women belong to the *Roe v. Wade* generation and were just young enough for some to have had abortions.

Combining all age groups, the increase in incidence was 0.4 percent per year for whites, 0.9 percent per year for blacks, and 0.5 percent per year total.^{4, 8} An annual percentage change of 0.5, based on 160,000 total cases in 1987, results in 800 more cases yearly.^{4, 9} Because the estimate made by Brind et al. concerned only the independent effect of abortion, not the delayed childbirth effect, their estimate of the number of additional cases was on target.

Silence and Denial

In the influential 2001 report,^{4, 5} the disparity in breast cancer rates between the *Roe* generation and the older cohort was not explained. The omission of the effect of abortion is startling: lead authors Holly Howe and Phyllis Wingo had published earlier research showing a positive association between abortion and breast cancer.^{1, 10, 11} Moreover, Howe was also lead author of a record-linkage case-control study in 1989, which reported a statistically significant 90 percent increased risk among post-abortive New York residents. Wingo was a CDC researcher in 1986 when she co-authored a letter to *The Lancet* that stated: "Induced abortion before first term pregnancy increases the risk of breast cancer,"¹² citing two American studies.^{4, 11}

In 1997 Wingo led a group of ACS researchers who reviewed the research. By then, 11 of 12 US studies indicated increased risk. Eight studies were statistically significant, but Wingo still stated that the research was "inconsistent" and that she could not arrive at "definitive conclusions."^{13, 14}

Professor Brind noted Wingo's inconsistent conclusions and observed: "...the overall trend of the data in the direction of increased risk is unmistakable."^{15, 16}

Angela Lanfranchi, M.D., a clinical assistant professor of surgery at the Robert Wood Johnson Medical School, had an

explanation for medical experts' silence. In a false-advertising lawsuit filed against Planned Parenthood, in which the abortion provider's statements about the research are being challenged, Lanfranchi declared under oath:

In September 1999 I wrote a letter to the president and each of the board members of my medical society, the American Society of Breast Surgeons. My letter...said that doctors...need to get this information about abortion and breast cancer to the public, and asked that an expert be invited to address the society on this issue. Some time later I called the president, Dr. Rachel Simmons, and she told me, apologetically, that she presented it to the board but they felt it was "too political."

In March 2000 I attended the Miami Breast Cancer Conference...I asked the conference director, Dan Osman M.D., if he knew there was a link between abortion and breast cancer. I was stunned when he said that he did. I asked him why there couldn't be a presentation about it at the meeting. He said it was "too political."

Over the past three or four years, I have spoken with many authorities and people in a position to be well informed. Some have been straightforward and said they know it is a risk factor but felt it was "too political" to speak about. Others have been evasive.... Some have been openly hostile.... Some initially hostile doctors...debated it with me and have changed their minds.

Some pro-choice doctors have come to agree it is true and do tell their patients about the risk. Some doctors who were initially skeptical have started obtaining a complete reproductive history on their patients and found, as I did, that....cases of breast cancer in young women are associated with an abortion history....^{5,3}

The first American study, published in 1981, found that a "first trimester abortion before FFTP first full-term pregnancy, whether spontaneous or induced, was associated with a 2.4-fold increase in breast cancer risk."⁴

Oxford scientists hastily published a larger study, which included 1,176 cases. They said that their findings "are entirely reassuring, being in fact more compatible with protective effects than the reverse" (OR=0.84). Yet, they revealed a flaw in their study when they said, "Only a handful of women stated that they had had a termination before their first term pregnancy...."^{5,4}

Nineteen years later, one of these scientists and others at Oxford stated, incorrectly, that "none of the cohort or record-linkage studies have shown a significant increase in breast cancer risk after exposure to induced abortion."³ More than 90 percent of the study's post-abortive cases and controls were misclassified as not having had abortions,⁵ a difficulty reminiscent of a severely criticized but widely quoted 1999 Danish study by Melbye et al.^{3,35,6}

The scientists using Oxford-like methods have allies, including cancer organizations, the mainstream press, women's magazines, politicians who campaign as abortion supporters, and left-of-center women's groups. The web pages of the NCI and leading American and Canadian cancer organizations contain false statements, misrepresentations, and omissions in their discussions of the research.

Professor Brind calls this "outcome-based science." For instance, the study by Melbye et al., which found no overall elevation in risk, is often cited as a "definitive" study.³³ It is commonly used to disparage³⁹ studies reporting risk elevations.

During a Committee on Commerce hearing to discuss cancer research, however, the NCI's Director of the Division of Clinical Sciences, Dr. Edison Liu, offered perhaps one of the best criticisms of this practice. He told former U.S. Rep. Tom Coburn M.D. and other members of Congress that "one study doesn't make a conclusion...."⁵⁷

A web page of the National Breast Cancer Coalition,⁵⁸ on the other hand, cites a 1998 study by McCredie et al.⁵⁹ and a 1995 study by Calle et al.⁶⁰ in support of its statement that "there is no association between abortion and risk of breast cancer." However, the former didn't report any data on induced abortion and the latter only examined the effect of spontaneous abortions. An overwhelming majority of the studies reporting risk elevations are omitted from the web pages altogether.

Although American women have a 12.5 percent lifetime risk of breast cancer, and childbearing is known to be an effective means of risk reduction, women are encouraged to delay their first pregnancy and to have smaller families in the name of "reproductive health." Surgical abortion and abortifacients have been aggressively marketed as a "woman's right." Instead of focusing on the merits of the scientific research, American media have portrayed efforts to inform women of the scientific findings as "pro-life scare tactics."⁶¹

Sample headlines in major newspapers include "Abortion foes seize on reports of cancer link in ad campaign" and "Abortion foes cite dubious health risk."^{62,63} In a 2001 *Redbook* article purporting to discredit research showing the abortion-breast cancer link,⁶⁴ readers weren't told that the expert who was interviewed, Mitch Creinin, M.D., had researched the use of ultrasound to determine the effectiveness of RU-486 for chemically induced abortions.

Author Barry Yeoman in the magazine *Self* told women that the NCI, the World Health Organization (WHO), and the ACS "have reviewed the claims and declared them flawed."⁶⁵ The Coalition on Abortion/Breast Cancer responded on July 25, 2002, with a press release that noted that most of the 15 American studies were funded at least in part by the NCI, and 13 of them found increased risk. The coalition asked, "Does Yeoman really expect women to believe that these scientists, whose research was paid for by US taxpayers, don't really practice science?"

A scientist and five doctors have separately accused the NCI of misleading the public about the research, including former Representatives Tom Coburn, M.D., and Dave Weldon, M.D.^{57,66,67} Nonetheless, some journalists have uncritically accepted erroneous statements published on the NCI's web page.^{68,69,70} Women's organizations, which have made abortion advocacy the centerpiece of their missions, were silent about the research until the subject won public attention. They too repeat the misleading statements of the NCI and the ACS.

On its editorial pages this year, *The New York Times* dismissed women's health concerns about the link and said the NCI and the ACS "found no association."⁷¹ Its editors charged that conservatives in Congress "bullied" the NCI into taking down its web page, a wild assertion in light of accusations that the agency published blatant lies.^{66,72} No mention was made that 12 abortion supporters in Congress led by Rep. Henry Waxman attempted to influence the agency. These members of Congress protested the removal of the erroneous NCI web page in an Oct. 21, 2002, letter to Health and Human Services Secretary Tommy Thompson.

For its efforts to inform women about the studies that the NCI neglected to mention, the Coalition on Abortion/Breast Cancer was

compared to the Taliban by Dr. Fiona Stewart, who was not identified as a sociologist rather than a medical expert, in an Australian newspaper.^{6,9}

Some publications, on the other hand, have provided fair coverage of the issue, including *WorldNetDaily*, *Report News Magazine*, *Cybercast News Service*, *Chicago Tribune*, the *Indianapolis Star*, and the *National Catholic Register*.⁷⁰⁻⁷⁷ PBS in Columbus, Ohio, and radio talk show hosts including Barbara Simpson of ABC Radio in San Francisco have conducted interviews. Thus, the truth is being heard amid the considerable misinformation.

Politicians who have labeled themselves "pro choice" are complicit in the news blackout. Two years ago, Resolution SR 8, calling for a task force to examine the research, was introduced in the Illinois Senate. Abortion supporters in the legislature fought the measure bitterly. Several argued that the resolution did not belong in the legislature because legislators are not medical professionals. Yet SB 114, which would have compelled Catholic hospitals to direct rape victims to the nearest abortion clinic, was pending at the very same time.

Former Illinois Lt. Gov. Corinne Wood opposed SR 8, although she is a breast cancer survivor, arguing that women should not be informed about the research because it would increase patients' sense of "guilt."

Planned Parenthood, the American Civil Liberties Union, and the *National Organization for Women* sent lobbyists to the Senate Executive Committee to officially oppose SR 8. The Illinois State Medical Society lobbyist sat with opponents of the measure during testimony before the committee and did nothing to aid its passage, although the society did not officially oppose the measure.

Three years ago, a former editor of the *Journal of the American Medical Association*, George Lundberg, M.D., told an interviewer that abortion and tobacco are "sensitive issues" that had been on the AMA's "don't touch" list for many years.⁷ "Even last year an AMA spokesperson told *WorldNetDaily* that the organization "doesn't have a policy at all" with respect to informing women about the abortion-breast cancer research.⁷ This stance is reminiscent of the AMA's opposition to federal legislation requiring tobacco companies to provide health warnings on cigarette packages in 1964. The AMA had accepted \$10 million from six tobacco companies to conduct research on the tobacco-cancer link.^{7,9}

Implications for Patient Care

Patients contemplating a surgical procedure or even medical therapy such as hormone replacement ordinarily expect to learn of potential threats to their future health, even if uncommon and not definitively proved. For women considering abortion, evidence of an increased cancer risk should be disclosed as part of obtaining informed consent.

Post-abortive women, if informed of the evidence of risk, may wish to avail themselves of opportunities to seek early detection and undertake risk-reduction measures. They are now being denied opportunities to benefit from clinical trials exploring the efficacy of risk-reduction drugs.

Information is especially crucial for teenagers. For women procuring abortions prior to age 18, Daling et al. reported a relative risk of 2.5. The study also included 12 cases with a family history of breast cancer in which the women obtained abortions before age 18. No controls free of breast cancer in the study had this history. All of

the cases developed breast cancer before age 45. For this group, the study reported a relative risk of infinity. Those without a positive family history who had obtained abortions before age 18 and after eight weeks gestation had a relative risk of 9.0.^{1,7} Thus, a significant number of today's abortion-bound adolescents could be, in 15 to 20 years, facing a lethal breast cancer while still caring for young children.

Aside from the independent risk of abortion itself, why does the evidence not compel the nation's cancer watchdogs to initiate a major public health awareness campaign about the confirmed protective effects of childbearing, breast feeding, and early FFTP?^{3,80}

Dr. Lanfranchi offered an explanation by recounting the story of Ignaz Semmelweis, M.D.:

He was an obstetrician in the 1840s who proved that hand-washing would reduce mortality rates from childbed fever from 30 to 2 percent on maternity wards. His reward for this was ridicule from his professors and loss of his hospital appointments. Women continued to die needlessly for another 30 years until the germ theory proved Semmelweis was correct. It must have been very embarrassing for the greatest medical professors of his time to be told by a lowly resident that they were responsible for many women's deaths.

We are in the same situation now. There is overwhelming and convincing evidence that abortion and breast cancer are linked, along with a well-described biologic mechanism. Twenty-eight out of 37 studies have shown this and women still don't know. Not only embarrassment and denial, but also fear of malpractice litigation causes doctors to continue to ignore these data. How can an abortionist not be held liable for increasing a woman's risk of breast cancer and not telling her?

It is unfortunate, but it has become my belief that it will be lawyers who will force the medical community to address this issue.^{*1}

Karen Malec is President of the Coalition on Abortion/Breast Cancer. E-mail address: response@abortionbreastcancer.com

Editor's note: In February 2003, the *National Cancer Institute* held a consensus workshop on the possible link between induced abortion and increased risk of breast cancer. They produced a *Summary Report*, which concluded that "induced abortion is not associated with an increase in breast cancer risk." This is now posted as "fact" on the NCI website. (See <http://www.cancer.gov/cancerinfo/ere-workshop-report>.)

Although the issue was subject to a vote of "over 100 of the world's leading experts," the NCI website does not state the result of the vote itself. And although the *Summary Report* did not mention that there was dissent, the NCI's website did post a "minority dissenting comment" indicating that one of the participants remains "convinced that the weight of available evidence suggests a real, independent, positive association between induced abortion and breast cancer risk."

Sorting out the science and truth of the matter is of the utmost importance so that relevant informed consent information can be provided to women considering an abortion. Consensus and political correctness must not inhibit the open discussion and evaluation of the scientific data.

Lawrence R. Huntoon, M.D., Ph.D.

REFERENCES

- 1 Segi M, Fukushima I, Fujisaku S, Kurihara M, Saito S, Asano K, Kamoi M. An epidemiological study on cancer in Japan. *GANN* 1957;48(Suppl):1-63.
- 2 Watanabe H, Hirayama T. Epidemiology and clinical aspects of breast cancer. *Nippon Rinsho* 1968;26:1853-1859 [Japanese].
- 3 MacMahon B, Cole P, Lin TM, Lowe CR, Mirra AP, Ravnihar B, Salber EJ, Valaoras VG, Yuasa S. Age at First Birth and Breast Cancer Risk. *Bull WHO* 1970;43:209-221.
- 4 Pike MC, Henderson BE, Casagrande JT, Rosario I, Gray GE. Oral contraceptive use and early abortion as risk factors for breast cancer in young women. *Br J Cancer* 1981;43:72-76.
- 5 Nishiyama F. Epidemiology of breast cancer in Tokushima prefecture. *Shikoku Ichi* 1982;38:333-343 [Japanese].
- 6 Laing AE, Demenais FM, Williams R, Kissling G, Chen VW, Bonney GE. Breast cancer risk factors in African-American women: the Howard University Tumor Registry experience. *J Natl Med Assoc* 1993;85:931-939.
- 7 Laing AE, Bonney GE, Adams-Campbell L, et al. Reproductive and lifestyle factors for breast cancer in African American women. *Genet Epidemiol* 1994;11:A300 (abstract).
- 8 Rohan T, McMichael AJ, Baghurst PA. A population-based case-control study of diet and breast cancer in Australia. *Am J Epidemiol* 1988;128:478-489. Data omitted here are published in Andrieu et al., [See reference #20.]
- 9 Bu L, Voigt L, Yu Z, Malone K, Daling J. Risk of breast cancer associated with induced abortion in a population at low risk of breast cancer. *Am J Epidemiol* 1995;141:S85 (abstract).
- 10 Ye Z, Gao DL, Qin Q, Ray RM, Thomas DB. Breast cancer in relation to induced abortions in a cohort of Chinese women. *Br J Cancer* 2002;87:977-981.
- 11 Brinton LA, Hoover R, Fraumeni JF Jr. Reproductive factors in the aetiology of breast cancer. *Br J Cancer* 1983;47:757-762.
- 12 Rosenberg L, Palmer JR, Kaufman DW, Strom BL, Schottenfeld D, Shapiro S. Breast cancer in relation to the occurrence and time of induced and spontaneous abortion. *Am J Epidemiol* 1988;127: 981-989.
- 13 Marcus PM, Baird DD, Millikan RC, Moorman PG, Qaqish B, Newman B. Adolescent reproductive events and subsequent breast cancer risk. *Am J Pub Health* 1999;89:1244-1247.
- 14 Palmer JR, Rosenberg L, Sowmya Rao R, et al. Induced and spontaneous abortion in relation to risk of breast cancer. *Cancer Causes Control* 1997;8:841-849.
- 15 Lazovich D, Thompson JA, Mink PJ, Sellers TA, Anderson KE. Induced abortion and breast cancer risk. *Epidemiology* 2000;11:76-80.
- 16 Daling JR, Brinton LA, Voigt LF, et al. Risk of breast cancer among white women following induced abortion. *Am J Epidemiol* 1996;144:373-380.
- 17 Daling JR, Malone DE, Voigt LF, White E, Weiss NS. Risk of breast cancer among young women: relationship to induced abortion. *J Natl Cancer Inst* 1994;86:1584-1592.
- 18 Newcomb PA, Storer BE, Longnecker MP, Mittendorf R, Greenberg ER, Willett WC. Pregnancy termination in relation to risk of breast cancer. *JAMA* 1996;275:283-287.
- 19 Howe HL, Senie RT, Bzduch H, Herzfeld P. Early abortion and breast cancer risk among women under age 40. *Int J Epidemiol* 1989;18:300-304.
- 20 Andrieu N, Duffy SW, Rohan TE, Le MG, Luporsi E, Gerber M, Renaud R, Zaridze DG, Lifanova Y, Day NE. Familial risk, abortion and their interactive effect on the risk of breast cancer: a combined analysis of six case-control studies. *Br J Cancer* 1995;72:744-751.
- 21 Hirohata T, Shigematsu T, Nomura AMY, Nomura Y, Horie A, Hirohata I. Occurrence of breast cancer in relation to diet and reproductive history: a case-control study in Fukuoka, Japan. *Natl Cancer Inst Monogr* 1985;69:187-190.
- 22 Ewertz M, Duffy SW. Risk of breast cancer in relation to reproductive factors in Denmark. *Br J Cancer* 1988;68:99-104.
- 23 Lipworth L, Katsouyanni K, Ekborn A, Michels KB, Trichopoulos D. Abortion and the risk of breast cancer: a case-control study in Greece. *Int J Cancer* 1995;61:181-184.
- 24 Rookus MA, van Leeuwen FE. Induced abortion and risk for breast cancer: reporting (recall) bias in a Dutch case-control study. *J Natl Cancer Inst* 1996;88:1759-1764.
- 25 Talamini R, La Vecchia C, Franceschi S, et al. The role of reproductive and menstrual factors in cancer of the breast before and after menopause. *Eur J Cancer* 1996;32A:303-310.
- 26 Dvoirin VV, Medvedev AB. Role of women's reproductive status in the development of breast cancer. In Tallin: *Methods and Progress in Breast Cancer Epidemiology Research, 1978*. Moscow: Oncology Science Center of the USSR Academy of Sciences; 1978:53-63 [Russian].
- 27 Le M-G, Bachelot A, Doyon F, Kramar A, Hill C. Oral contraceptive use and breast or cervical cancer: preliminary results of a French case-control study. In: Wolff J-P, Scott JS, eds. *Hormones and Sexual Factors in Human Cancer Aetiology*. Amsterdam: Elsevier; 1984:139-147.
- 28 Luporsi E. Unpublished data, 1988, cited in Andrieu et al. *op cit*. [See reference #20.]
- 29 Wu AH, Ziegler RG, Pike MC, et al. Menstrual and reproductive factors and risk of breast cancer in Asian-Americans. *Br J Cancer* 1996;73:680-686.
- 30 Robertson C, Van Den Donk M, Primic-Zakelj, MacFarlane T, Boyle P. The association between induced and spontaneous abortion and risk of breast cancer in Slovenian women aged 25-54. *Breast* 2001;10:291-298.
- 31 Sanderson M, Shu X-O, Jin F, Dai Q, Wen W, Hua Y, Gao Y-T, Zheng W. Abortion history and breast cancer risk: results from the Shanghai breast cancer study. *Int J Cancer* 2001;92:899-905.
- 32 Moseson M, Koenig KL, Shore RE, Pasternak BS. Influence of medical conditions associated with hormones on the risk of breast cancer. *Int J Epidemiol* 1993;22:1000-1009.
- 33 Melbye M, Wohlfahrt J, Olson JH, Frisch M, Westergaard T, Helweg-Larsen K, Andersen PK. Induced abortion and the risk of breast cancer. *N Engl J Med* 1997;336:81-85.
- 34 Burany B. Gestational characteristics in women with breast cancer. *Jugosl Genekol Opstet* 1979;19:237-47 [Serbo-Croatian].
- 35 La Vecchia C, Negri E, Franceschi S, Parazzini F. Long-term impact of reproductive factors on cancer risk. *Int J Cancer* 1993;53:215-219.
- 36 Zaridze DG. Ph.D. Thesis, University of Paris, 1988, cited by Andrieu et al., *op cit*. [See reference #20.]
- 37 Adami H-O, Bergstrom R, Lund E, Meirik O. Absence of association between reproductive variables and the risk of breast cancer in young women in Sweden and Norway. *Br J Cancer* 1990;62:122-126.
- 38 Harris B-M L, Eklund G, Meirik O, Rutqvist LE, Wiklund K. Risk of cancer of the breast after legal abortion during first trimester: a Swedish register study. *BMJ* 1989;299:1430-1432.
- 39 Newcomb PA, Mandelson MT. A record-based evaluation of induced abortion and breast cancer risk (United States). *Cancer Causes Control* 2000;11:777-781.
- 40 Goldacre MJ, Kurina LM, Seagroatt V, Yeaates. Abortion and breast cancer: a case-control record linkage study. *J Epidemiol Community Health* 2001;55:336-337.
- 41 Andrieu N, Clavel F, Gairard B, et al. Familial risk of breast cancer and abortion. *Cancer Detection Prev* 1994;18:51-55.
- 42 Russo J, Tay TK, Russo IH. Differentiation of the mammary gland and susceptibility to carcinogenesis. *Breast Cancer Res Treat* 1982;2:5-73.
- 43 Kunz J, Keller PJ. HCG, HPL, oestradiol, progesterone and AFP in serum in patients with threatened abortion. *Br J Obstet Gynaecol* 1976;83:640-644.
- 44 Russo J, Russo IH. Susceptibility of the mammary gland to carcinogenesis. *Am J Pathol* 1980;100: 497-512.
- 45 Russo J, Russo IH. Toward a physiological approach to breast cancer prevention. *Cancer Epidemiol, Biomarkers Prev* 1994;3:353-364.
- 46 Howe HL, Wingo PA, Thun MJ, Ries LA, Rosenberg HM, Feigal EG, Edwards BK. Annual report to the nation on the status of cancer, 1973 through 1998, featuring cancers with recent increasing trends. *J Natl Cancer Inst* 2001;93:824-842.
- 47 Brind J, Chinchilli, VM, Severs WB, Summy-Long J. Induced abortion as an independent risk factor for breast cancer: a comprehensive review and meta-analysis. *J Epidemiol Community Health* 1996;50:481-496.
- 48 Howe HL, et al., *op. cit.*, figure 3, p. 831.
- 49 Howe HL, et al., *op. cit.*, table 1, p. 826.

- ⁴⁹ Harris JR, Lippman ME, Veronesi U, Willet W. Breast cancer (first of three parts). *N Engl J Med* 1992;327:319-328.
- ⁵⁰ Wingo PA, Newsome K, Marks JS, Calle EE, Parker SL, et al. The risk of breast cancer following spontaneous or induced abortion. *Cancer Causes Control* 1997;8:93-108.
- ⁵¹ Stadel BV, Rubin GL, Wingo PA, Schlesselman JJ. Oral contraceptives and breast cancer in young women. *Lancet* 1986;ii:436.
- ⁵² Brind J, RCOG advises abortion practitioners: ABC link "Could Not Be Disregarded." *Abortion-Breast Cancer Q Update* 2000;3(4):5.
- ⁵³ Agnes Bernardo, Pamela Colip, and Sandra Duffy-Hawkins v. Planned Parenthood Federation of America and Planned Parenthood of San Diego and Riverside Counties; Superior Court of State of California, County of San Diego, Aug. 15, 2001.
- ⁵⁴ Vessey MP, McPherson K, Yeates D, Doll R. Oral contraceptive use and abortion before first term pregnancy in relation to breast cancer risk. *Br J Cancer* 1982;45:327-331.
- ⁵⁵ Brind J, Chinchilli VM. On the relation between induced abortion and breast cancer. (letter) *Lancet Oncol* 2002;3:266-267.
- ⁵⁶ Brind J, Chinchilli VM. Letter re: Induced abortion and the risk of breast cancer. *N Engl J Med* 1997;336:1834-1835.
- ⁵⁷ The State of Cancer Research. Subcommittee on Health and Environment. Committee on Commerce. US House of Representatives. July 20, 1998.
- ⁵⁸ Position Statement on Abortion and Breast Cancer Risk September 2002. National Breast Cancer Coalition. Available at: <http://www.natlbcc.org/bin/index.asp?strid=364&depid=9&btid=1>. Accessed March 26, 2003.
- ⁵⁹ McCredie M, Paul C, Skegg DC, Williams S. Reproductive factors and breast cancer in New Zealand. *Int J Cancer* 1998;76(2):182-188.
- ⁶⁰ Calle EE, Mervis CA, Wingo PA, et al. Spontaneous abortion and risk of fatal breast cancer in a prospective cohort of United States women. *Cancer Causes Control* 1995;6(5):460-468.
- ⁶¹ Brown M. Voters need GOP showdown on abortion. *Chicago Sun Times*, Jan. 24, 2002, Sec. 1, p. 2.
- ⁶² Simon S. Abortion foes seize on reports of cancer link in ad campaign. *Los Angeles Times*, March 24, 2002, p. A26.
- ⁶³ Milligan S. Abortion foes cite dubious health risk. *Boston Globe*, May 10, 2002, p. A3.
- ⁶⁴ Monson N. Seven cancer facts you need to know now. *Redbook*, Sept. 2001, p. 36.
- ⁶⁵ Yeoman B. Abortion and breast cancer: the truth on trial. *Self*, Aug. 2002, pp. 82-84.
- ⁶⁶ Brind J. Latest web page from the National Cancer Institute: A well-cooked bowl of factoids. *RFM News*, March 23, 2002. Available at: www.abortionbreastcancer.com/Public_Policy.htm. Accessed March 31, 2003.
- ⁶⁷ Brind J. NCI's new ABC 'facts': Fewer lies: US National Cancer Institute changes website under congressional pressure. *Abortion-Breast Cancer Q Update* 1999;3(3):1.4. Available at http://abortionbreastcancer.com/article_once.htm. Accessed March 27, 2003.
- ⁶⁸ Editorial. Abortion and breast cancer. *The New York Times*, Jan. 6, 2003, p. A20.
- ⁶⁹ Stewart F. Behind that billboard. *Herald Sun*, March 26, 2002, p. 21.
- ⁷⁰ Foster J. Abortion-cancer link goes to court. *World Net Daily*, Aug. 26, 2000. Available at http://www.WorldNetDaily.com/news/article.asp?ARTICLE_ID=17952. Accessed March 28, 2003.
- ⁷¹ Byfield J. Bearer of bad news: Alberta woman crashes a world conference with her message: abortion causes breast cancer. *Report News Magazine*, July 8, 2002, p. 54.
- ⁷² Goodenough P. First case linking abortion-breast cancer settled. *Cybercast News Service*, Jan. 4, 2002. Available at: <http://www.cnsnews.com/ForeignBureaus/Archive/200201/FOR20020104b.html>. Accessed March 28, 2003.
- ⁷³ Byrne D. Why all the silence about abortion and breast cancer? *Chicago Tribune*, May 21, 2001, Sec. 1, p. 17.
- ⁷⁴ Byrne D. Link between cancer, abortion: scientific evidence being ignored. *Chicago Tribune*, July 2, 2001, Sec. 1, p. 13.
- ⁷⁵ Pulliam R. Politics and the neglected abortion-breast cancer link. *Indianapolis Star*, Sept. 15, 2002, p. D02.
- ⁷⁶ Drake T. Settlement on breast cancer may haunt abortion industry. *National Catholic Register*, Jan. 13-19, 2002, p. 1.
- ⁷⁷ Dougherty J. Can doctors be sued over abortion? Those who don't inform patients of breast-cancer link could be targets. *WorldNetDaily*, March 27, 2002. Available at: http://www.WorldNetDaily.com/news/article.asp?ARTICLE_ID=26970. Accessed March 28, 2003.
- ⁷⁸ Mullan F. Straight talk about US medicine. *Health Affairs* 2000;19(1):117-123.
- ⁷⁹ Kessler D. *Question of Intent: a Great American Battle with a Deadly Industry*. 1st ed. New York, N.Y.: Public Affairs; 2001:207.
- ⁸⁰ Beral V. Breast cancer and breastfeeding: collaborative re-analysis of individual data from 47 epidemiological studies in 30 countries, including 50,302 women with breast cancer and 96,973 women without the disease. *Lancet* 2002;360:187-195.
- ⁸¹ Lanfranchi A. Oral statement to the press. Population Research Institute conference, Santa Clara, Calif.; April 5, 2002.



THE PRACTICE OF MEDICINE IS UNDER ATTACK...

AAPS is fighting back!

**Help us spread the word.
After you've used your issue of JP&S...**

Pass it along to a colleague...
Clip an article and give to your patients...
Feature it in your reception area...

Sponsor a subscription for your library or
medical society... only \$45!



THE AAPS MISSION

Since 1943, AAPS has been the only national association of physicians in all specialties dedicated to preserving and protecting the sanctity of the patient-physician relationship and promoting the practice of private medicine.

We're working to keep third parties—whether the government, insurance companies, or healthcare plans—out of the examining room and medical records.

WHY WE'RE EFFECTIVE

- We're dues-supported
- We accept no special interest money
- We attract influential legislators (Members in Congress!)
- The media listens to us
- We mobilize public action
- We defend individual doctors

AAPS GETS RESULTS

- ✓ Fights increased government control of the practice of medicine
- ✓ Opposes increased government prosecution of physicians
- ✓ Supports unrestricted private contracting with Medicare patients
- ✓ Opposes national provider ID & central patient database
- ✓ Sued the government to stop enforcement of HIPAA regulations
- ✓ Helps doctors win legal battles in court, admin hearings & peer review

See our website for other ways to get the word out to the public and decision makers.

Or email, phone or fax with your ideas or to sponsor a JP&S subscription:

**EMAIL: aaps@aapsonline.org
www.aapsonline.org
800-635-1196 520-325-4230 Fax**



Association of American Physicians & Surgeons
The Voice for Private Physicians Since 1943