

Presidential Address

Eat Your Cereal

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A businessman traveled to Philadelphia one day and checked into a famous hotel. A bellhop was summoned to his room and upon entering was asked a rather embarrassing question.

"Can you find me a girl?"

The bellhop being somewhat aggressive said, "Of course. I can provide you with almost anything you'd like."

"But I want someone very special."

"No problem," said the bellhop.

"I want a redhead."

"Well I think that can be arranged," said the bellhop. "I will have a beautiful redhead for you in a little while."

"Not only a redhead," said the businessman, "but I want a girl at least six feet tall."

"Wow," said the bellhop, "that may be a bit more difficult, but I think I can handle that."

"Not only six feet tall, but she must weigh under 100 pounds."

The bellhop hesitated at this point but smiled graciously as the businessman handed him a hundred dollar bill. "There's another one in this for you . . ."

An hour passed and then there was a knock on the door of the hotel room. Upon opening the door, in stepped the bellhop with a tall scraggly red-headed young lady, fully six feet two and clearly weighing less than 90 pounds.

"Perfect," said the businessman as he disappeared into the bedroom. He returned a moment

later with a small redheaded young child, turned to her and said, "See what will happen to you if you don't eat your cereal!"

RESEARCHING THE CANCER CURE

It would be wonderful to announce to the world that we have finally done it. We, the cancer scientists, have found the cure for cancer. A simple injection and the scourge is over, no longer to penetrate the heart with fear and dread. Are we close?

This meeting is a testament to research on the fringe: new findings, new approaches, new methods of getting those lymphocytes to lyse the cancer cells or putting that self-destruct gene into those cancer cells.

Good science always starts with appropriate questions. Suppose we had to design a set of questions to be answered by our cancer researchers. What do you think we could come up with. Here is a suggested list:

1. What are the diagnostic signs of cancer?
2. Does any alteration take place in the structure of a part preceding the more obvious change that is called cancer? If there does, what is the nature of that alteration?
3. Is cancer always an original and primary disease, or may other diseases degenerate into cancer?
4. Are there any proofs of cancer being a hereditary disease?
5. Are there any proofs of cancer being a contagious disease?
6. Is there any well-marked relationship between cancer and other diseases?
7. May cancer be regarded at any period, or under any circumstances, merely as a local disease?
8. Has climate, or local situation, any influence in rendering the human constitution more or less liable to cancer?

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9. Is there a particular temperament of body more liable to be affected with cancer?
10. Are brute creatures subject to any disease resembling human cancer?
11. Is there any period of life absolutely exempt from the attack of this disease?
12. Are the lymph glands ever affected primarily in cancer?
13. Is cancer under any circumstances susceptible of a natural cure?

Certainly, if I had a medical student or resident come to me and ask which trails to follow in the pursuit of cancer research, I could give him this list of questions and say, "Pick one. We still are not certain about all the answers." And doesn't this represent a curriculum for cancer research in any institution? How close are we? How have we done so far?

In 1801, the Institution for Investigating the Nature and Cure of Cancer was established under the auspices of the Society for Bettering the Condition and Increasing the Comforts of the Poor. A medical committee was formed, whose distinguished members were Dr. Matthew Baillie (nephew of John and William Hunter), Mr. Sharpe, Mr. Everard Home (brother-in-law of John Hunter), Mr. Pearson, Mr. John Abernethy (pupil of John Hunter), and Dr. Denman as the secretary.

In 1802, this committee published a small brochure that outlined the aims of the Society and listed the questions that you have just seen. That was 193 years ago. Progress in research is much faster today, but somehow, I would not recommend that you hang up your scalpels just yet.

For the major cancer killers today, surgery represents not only the first line of cure but often the only line. I am not interested in the arguments about cancer being disseminated from its onset so that no cures are possible without systemic treatment. Those arguments are specious and should be relegated to the philosophy class along with the angels on the pinhead and the sound of the falling tree in the forest. Does anybody argue that pneumonia can never be cured because the patient may get another infection? There is not a surgeon in this room today who has not cured a patient of cancer.

OUTLINING THE PROBLEM

Let's take a look at the problem. Malignant neoplasm is the first listed discharge diagnosis for

1,594,000 patients each year, accounting for 7.3% of total care days. For hospital discharges, in patients >65 years of age cancer accounts for 278 per 10,000 population, and in those >75 years of age 295 per 10,000 population. It is second only to heart disease in discharge diagnoses in this age group.

We have an aging population, and the expenditure in resources for cancer treatment is enormous. Is the federal government aware of this problem? You bet they are. But the government is afflicted with a near terminal case of disassociative akinesia: they cannot move because they are uncertain as to which direction to take. However, HCFA is prone to practicing surgery without a license, solving the cost containment problem by cutting reimbursement to physicians and hospitals. Unfortunately, there is no quality review to answer to if the patient dies. Here is a quote worth noting:

Let's take a closer at the problem of caring for the elderly. In one year, about 8% of Medicare patients use about 70% of all Medicare money. Most of these high-cost patients are in their final year of life. Aside from the economic question, I believe we are harassing too many people when they ought to be permitted to die quietly and with dignity. This overtreatment of the elderly came about in part because physicians are trained to do everything possible for patients and in part because Americans believe in perpetual life . . .

This quote is excerpted from an article published in the *Hospital Tribune* and written by Eli Ginzberg, Hepburn Professor of Economics at Columbia University (1). Doctor Ginzberg has been a consultant to the government for >40 years.

Dr. Ginzberg, I will assume, was in excellent health when he wrote that opinion.

STUDIES IN THE ELDERLY

We conducted a study of general surgery in octogenarians that was presented in the papers section of the American College of Surgeons meeting (2). Fourteen percent of all surgical procedures are performed in elderly patients. We found that of 65 pa-

TABLE 1. General surgery in patients >80 years of age

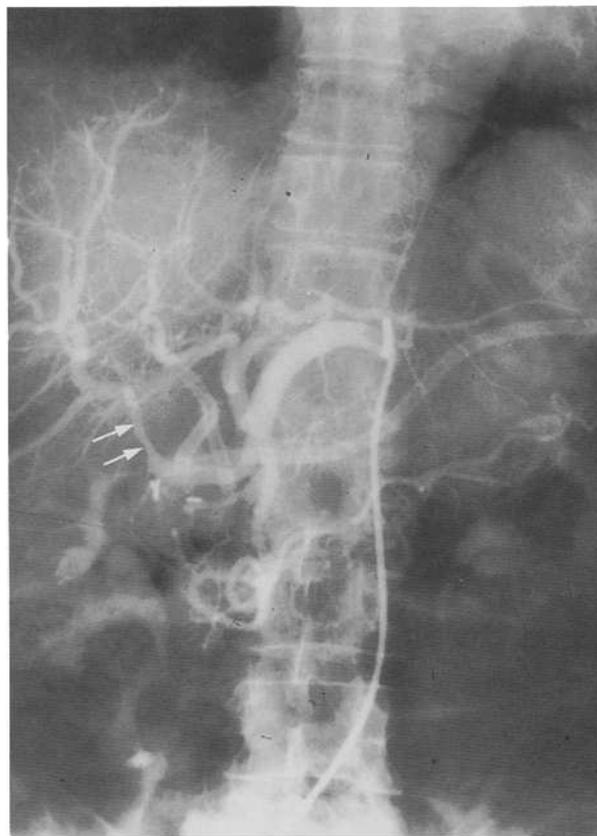
Diagnosis	Home	SNF	Mortality
Colorectal (n = 65)	50	8	7 (11%)
Biliary tract (n = 36)	28	21	6 (17%)
Breast (n = 22)	18	1	3 (14%)

TABLE 2. Five-year survival rate by age in infiltrating breast cancer

Age (yr)	n	Survival (%)	
		Absolute	Relative
<50	164	54	56
50-59	148	60	64
60-69	142	60	68
70+	95	54	75

tients who underwent colectomy, 50 returned home and only eight required discharge to a skilled nursing facility. For comparable patients undergoing biliary tract surgery, 28 of 36 returned home, and for patients undergoing mastectomy, the number was 18 of 22 patients (Table 1). The survival rates of these patients were at least equivalent to the expected survival rates according to Metropolitan Life actuarial tables (3), and that also included patients who underwent surgery for cancer. Hospital deaths were invariably the result of advanced or untreated disease, such as dead bowel or widespread metastases. We reached the following conclusions. High costs were attributable to a few patients in each group, usually those who were treated late as emergencies. Furthermore, patients who underwent elective operations did well and survived better than expected according to Metropolitan Life tables. Most importantly, it was impossible to predict the last year of life. Death could have been delayed by earlier diagnosis and treatment. In another study, we tracked breast cancer patients by age and found that the older patients had equivalent or better survival rates (Table 2) (4).

I once wrote an editorial for a newspaper and suggested that because the population was clearly aging, it would soon be evident that the elderly represented the majority of the votes and, with that, the political clout. The first recommendation they would make is that we stop treating disease in young people.

**FIG. 2.** Tumor invading wall of the vena cava.**FIG. 1.** Encasement (arrows) of the hepatic artery.

What would Dr. Ginzberg have us do with this 76-year-old former school teacher who had this tumor demonstrating hepatic artery encasement (5) (Fig. 1)? She was not interested in dying quietly. As a matter of fact, she is still alive 12 years later and

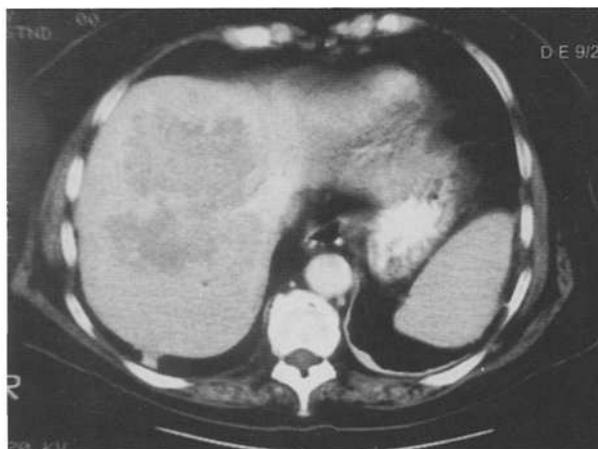
**FIG. 3.** Right trisegmentectomy was necessary to remove this large hepatoma.

TABLE 3. Operations reported 1987, 1992 (yearly average estimate)

Procedure	Total (000's)
Abdominal perineal resection	13
Radical neck dissection	11
Anterior resection	11
Pancreatic resections	5
Liver resections	7 (?)
Esophageal resection	<3
Pelvic exenteration	<2

The total number of physicians practicing general surgery was 24,900. Data from Wheeler (8).

was married after resection of this cancer. Unfortunately, the marriage did not work out as well as the operation.

Or perhaps Ginzberg would like to tell me what to do with this 77-year-old lady (Fig. 2) who had a large liver metastasis from a colon cancer invading the vena cava. She is now free of disease for 5 years after resection of the involved lobe and part of the vena cava (6).

Or this 72-year-old (Fig. 3) with a huge hepatoma requiring trisegmentectomy, who is alive 5 years later and living with her family.

Can any surgeon perform this surgery? All of these patients were referred by other surgeons after operation was unsuccessful in removing the cancer. What is the message for the Society?

IMPORTANCE OF SURGICAL ONCOLOGY TRAINING

Many years ago, due to the interest of Margaret Edwards, a surgical oncology manpower conference came to the conclusion that we needed surgical oncologists in the community. The SSO Training Committee, under the strong guidance of Bob Schweitzer, developed the guidelines and started the training programs. Although there was inordinate pressure to develop research-oriented training programs, that committee and those that followed resisted and demanded that these training programs

TABLE 4. Biopsy rates in ovarian cancer by different surgeons

Site	Gynecologic oncologist (n = 804)	General surgeon (n = 1,263)
Diaphragm	27.5%	11.7%
Gutters	27.5%	11.7%
Cul-de-sac	29.7%	11.4%
Pelvic nodes	35.3%	13.5%
Aortic nodes	32.9%	10.6%

Data from Nguyen et al. (9).

remain mainly clinical. I had the privilege of chairing that committee for 5 years. We tried to develop interest from other surgical bodies to create a board of surgical oncology but were rebuffed because of the threat of dismembering general surgery. I wonder if the attitudes portrayed were different from what existed at the time the American College of Surgery was formed. Let me quote Article II of the Articles of Incorporation of the College (7):

The object of the college shall be to elevate the standard of surgery, to establish a standard of competency and of character for practitioners of surgery, to provide a method of granting fellowships in the organization, and to educate the public and the profession to understand that the practice of surgery calls for special training, and that the surgeon elected to fellowship in this college has had such training and is properly qualified to practice surgery.

Couldn't we substitute oncologic surgery in the appropriate places in that article and isn't that the aim of our society and its training programs? Are our surgical residencies so well balanced and thorough that we do not have to worry about surgeons faced with difficult cancer cases? Do we really need to think about meticulous technique in handling cancer or extended operations in this day and age of cancer chemotherapy, bone marrow transplantation, and radiotherapy? Table 3 is composed of updated data originally reported by H. Brownell

TABLE 5. Survival of ovarian cancer patients by surgical specialty

	5-year survey (%)			Med survey (mo)		
	Gynecologic oncologist	Obstetric gynecologist	General surgeon	Gynecologic oncologist	Obstetric gynecologist	General surgeon
Stage II (n = 448)	62	61	47	84	96	61
Stage III (n = 1,355)	25	29	16	26	29	21

Data from Nguyen et al. (9).

TABLE 6. Mortality of pancreatic resection by surgeon's volume

No. of cases per surgeon over 8 years	Mortality
<9 (n = 687)	15.5%
>41 (n = 4)	4.7%

Data from Lieberman et al. (10).

Wheeler in the bulletin of the American College of Surgeons (8).

Surgeons in practice perform cholecystectomies, herniorrhaphies, breast surgery, and occasional colon resections. Rarely do they perform abdominal perineal resections, Whipple operations, liver resections, adrenalectomy, or esophageal resections and almost never exenterations, forequarter amputations, or resections of major vessels for cancer. Does it make a difference?

You bet it does. Here are some data taken from a study on the results of treatment of ovarian cancer (Tables 4 and 5). Clearly, the survival rates and meticulous staging necessary to treat these patients were adversely affected by treatment by surgeons not specially trained to manage these problems (9).

Tables 6 and 7 demonstrate data accumulated by our president elect on the performance on inexperienced surgeons in managing the Whipple resection for pancreatic and periampullary cancer (10). It is time to face these problems squarely. If surgery does not eat its cereal, it will not continue to thrive.

Now I need to take a moment here to discuss training programs. A number of members of this Society have called for surgical oncology fellowships in which research forms the basis of the train-

TABLE 7. Mortality after pancreatic resection by hospital experience: 1984-1991 (n = 1,972)

Hospital volume (cases/8 yr)	Mortality	% total cases done
<10	21.8%	
10-50	12.3%	75
>81	4.0%	25

Data from Lieberman et al. (10).

ing. Their argument characterizes these programs as preparing surgeons for faculty positions. Does that presuppose that they need not know how to operate for complicated cancer problems? What will be the character of the surgical oncologist of the future? What will be the sum total of his or her clinical acumen? Is it true that any well-trained general surgeon could do these operations? But who will provide the training?

Recently, my chief resident and I were asked to scrub in on an ovarian cancer case being handled by our gynecological oncologist. He was debulking the patient and we resected a large segment of colon with tumor attached. My resident was amazed that we should waste our time in this effort with metastatic cancer. The gynecologist responded that he has been doing this on this patient for 9 years. She shortly left the hospital fully ambulatory and functional. There is no point to go on with other anecdotal cases. Although research may well play an important role in preparing a surgical oncologist for a faculty position, let us not forget that these programs were instituted to fill a need. This was a need not filled by programs that turned out "well-trained general surgeons." This Society will not survive if it fails to recognize the clinical history that distinguishes it from other academic surgical societies.

Our residents recognize the defects in their own training, and many are seeking additional training opportunities (Fig. 4). Perhaps it is time to reevaluate our training programs and to seriously consider whether all residents need to be exposed to each operation once so that none are proficient when

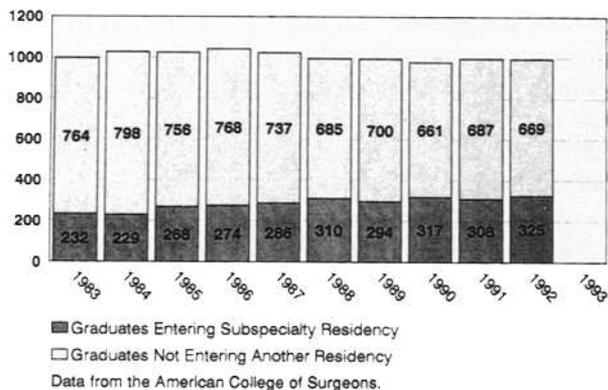


FIG. 4. Proportion of residents completing general surgery and not entering another accredited residency (1983-1992). Note that about one third of our residents seek additional training.

TABLE 8. Survival in pancreatic cancer

	5-year rate (%)	8-year rate (%)
Stage I	50	30
Stage II	25	20
Stage III	18	
Stage IV	0	

All patients underwent extended resection. Data from Satake et al. (12).

TABLE 9. *Survival rates in common sites: effect of a tumor service*

Site	1967-1971				1972-1979				p
	n	Average age (yr)	% LOC	5-year survival	n	Average age (yr)	% LOC	5-year survival	
Stomach	148	65	18	7	231	64	17	13	<0.025
ASC column	56	70	32	21	114	65	35	38	<0.025
Transverse column	40	66	43	24	61	64	29	35	<0.025
Sigmoid colon	111	65	48	24	135	65	27	26	
Rectum	143	66	46	18	174	64	41	26	<0.025
Breast	346	55	26	31	556	56	32	54	<0.001

they leave the program and need to seek additional training. Perhaps general surgical leaders are like the general practitioners that opposed surgical training at the time the college was formed. We need to take a closer look at Article II and apply it to general surgery, and it is up to our members in this Society to stand up as champions of special training in surgical oncology. We do not mean that only surgeons trained by us should perform complicated procedures, but some special training is required.

OTHER STUDIES FROM THE SURGICAL LITERATURE

There is always the argument that it does not matter. Are we really curing more patients with the special technical details involved in extended or radical surgery? Just a few examples: One of the venerable members of the surgical community has for years emphasized the importance of thorough lymph node dissection for cancer of the rectum. The recent death of George Block invoked a sense of loss by many of his friends and pupils. The results of that approach have consistently yielded the highest survival rates in the literature and the lowest pelvic recurrence rates (11). In Japan, careful mapping of the lymph node drainage of the pancreas and the esophagus (Table 8) has led to planned extensions of pancreatic duodenectomies (12) and esophagectomies (13) which have yielded survival

rates far better than had been achieved in the past. Here are some data that we never published because they were accumulated over sequential periods. For cancers treated on a tumor service, we showed a marked improvement in survival rates (Table 9) in almost every site, and as a comparison, survival rates during the same periods for cancers not treated on the surgical oncology service are shown in Table 10.

SOLUTIONS

So what is the message? What is there for the future of surgical oncology? Our first allegiance is to our patients, and frankly, we do not yet have the cure so we have to continue to operate on patients using the best surgical techniques and procedures that will yield the highest cure rate. We cannot be intimidated by the state or federal governments to modify our aggressive approach to cancer by reporting results that do not reflect the complexity of the procedures we do. That is why I have asked Jeff Fabri to head a committee to design a form that will truly reflect the outcomes of what operations we perform. That form will be piloted by this Society this year.

We cannot allow the gatekeepers to fail to refer cancer patients at an early stage, so I have asked Al Cohen to develop guidelines for the early diagnosis and referral of potential cancer patients. He has assumed this task with many members of the Society helping out in various site committees.

TABLE 10. *Survival of patients with cancer not on surgical oncology service*

Site	1967-1971				1972-1979			
	n	Average age (yr)	% LOC	5-Year survey	n	Average age (yr)	% LOC	5-Year survey
Esophagus	102	60	31	0	153	61	18	0
Lung	493	62	20	8	712	61	14	8
Lymph	59	54	5	29	101	56	4	23
Hodgkin's disease	41	42	12	52	77	40	25	54

We must continue to search for new ways to treat cancer, and we have to define surgical oncological research as something different from research done by surgeons. I have asked Don Morton to head a committee designed to keep our membership informed as to funding sources for training and research and to continue his full court press to obtain a better level of funding for surgical oncology research.

The Society must remain a forum for education of our members and general surgeons and discussion of issues and presentations of new findings.

Most of all, we must continue our training programs to assure a continued supply of surgical oncologists who can communicate with oncologists in other disciplines and provide consultation and guidance to general surgeons.

This is our cereal, and we must continue to nourish this Society because we provide something unique in cancer management. Our patients benefit from the treatment we give and the training we provide. It is unique and dedicated. And I understand that many general surgeons and program directors disagree with our views on special training. They may even think we have ulterior motives or represent special interests, but we do not. Our interests are for the patients with potentially curable cancer. To those critics and others who do not agree with our views on special training, I leave them with the following quote from Edmund Burke:

Those who would carry on great public schemes must be proof against the worst fatiguing delays, the most mortifying disappointments, the most shocking insults, and worst of all, the presumptuous judgment of the ignorant upon their designs.

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