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Special Article

# My Journey with the AAGL

Ladies and Gentlemen:

I am deeply honored to have been chosen by AAGL to be this year's honorary chair. I would like to give special thanks to Dr. Paya Pasic and all of the members of the board for this distinguished honor. And to Dr. C. Y. Liu, who went out of his way to personally invite me, I extend my heartfelt gratitude.

In preparing for today's address, I have been spending quite some time reflecting on the unusual trials and triumphs that have characterized our discipline. Through these ruminations, it was with profound gratitude that I reflected on AAGL, recalling how, even when the role of operative laparoscopy had yet to be clearly defined, let alone fully accepted, AAGL stood as an unwavering beacon, guiding us through and beyond unchartered shores. Indeed, even when I was just starting out, AAGL members were the ones who believed in me when no one else did; they were there for me when it seemed all the world had cast me aside. To all of you, then, I salute you, I honor you, and I thank each and every one of you. And to that singular man who started it all; Dr. Jordon Philips, may God bless his soul. Surely he is smiling down on us, knowing that his dream lives on within all of us here today.

Dr. Phillips [1–3], along with the original pioneering founders, Drs. Louis Keith, Jacques Rioux, and Richard Soderstrom, envisioned with remarkable foresight the need for an international forum for collaboration, education, and research to lift gynecologic laparoscopy out of its awkward infancy and into its full-fledged glory as an advanced operative force. Thirty-eight years after its 1972 debut, the AAGL list of achievements is simply staggering: It has become one of the most preeminent endoscopic organizations in the world, with more than 4000 members representing more than 80 countries, and counting [4]. *The Journal of Minimally Invasive Gynecology*, under the capable direction of Dr. Stephen Corson, has become one of the most respected journals in our field [2,5]. The AAGL includes leaders of one of the world's first and most renowned laparoscopic fellowship programs spearheaded by Drs. Luciano and Cohen, and pioneers of some of the first and most influential textbooks in English for our discipline [4,6–9].

In looking back at these outstanding accomplishments, we can see that our little community has achieved the unbelievable, for humankind is now closer than ever to the ideal of performing the most advanced surgeries through the least traumatic incisions. Therefore, the story I am about to tell is a true hero's story about the indomitable spirit of those who dared to believe the unbelievable. In attempting to change nearly 200 years[a] of entrenched surgical tradition [10] and at least 2000 years of mythology concerning women and pain[b] [11–13], we laparoscopists had to brave raucous revolts and smashing smites to our souls. In the end, though, nothing could stop us. We bet it all: the farm, the future, everything.

You must be wondering by now, How did all of this work out? How in the world did the AAGL members take on the entire surgical world and live to tell about it?! To answer this question, I began thinking about all of history's popular uprisings and came to realize that the AAGL members embodied 2 fundamental factors that have always been crucial for achieving significant social change: collaboration for a common cause and commitment to a grand dream [5,14]. To demonstrate the remarkable transformative powers of these elements, I would like to take a moment to reevaluate one of history's most seminal turning points, when these forces of *spirit* actually helped overturn at least 3000 years[c] of political tradition that had allowed the privileged few to rule over the powerless many [10,15,16]. This astonishing feat was accomplished by a most improbable source: the American Revolutionary War (Fig. 1).

What initially began as disputes about terms and taxes somehow transformed into a symbolic spiritual fight for a new political philosophy that held fairness and freedom as the new paradigms, concepts influenced by the transcendent ideals that America had come to represent. Somehow, all the declarations ringing through the air about rights and independence had tapped into some collective

[a] Two hundred years refers to Bozzini's 1806 debut, a year commonly cited as the beginning of modern endoscopy, when its usage was almost exclusively diagnostic and when, naturally, peering into the endoscope directly was the only available means of visualization.

[b] The so-called curse of Eve, a misinterpretation of a Biblical passage from Genesis 3:16 that suggests that women were cursed by God to endure painful childbirth but which was later distorted even further to include painful menstruation as well.

[c] Three thousand years if one counts the hereditary monarchies of Ancient Egypt.

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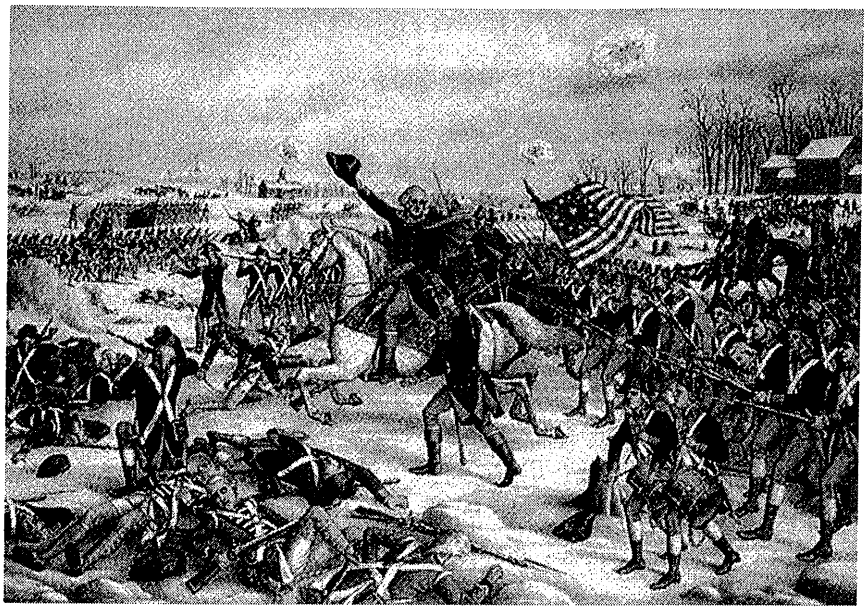

Fig. 1. The American Revolutionary War.

consciousness, and before long, a collaborative ethos emerged that echoed throughout the land, unleashing a worldwide rally of support for this newly idealized America, the one that finally stood up to kings and absolutist regimes, the one that came to symbolize a grander, freer future for humankind.

For this one moment in time, the supposed impermeable boundaries of culture, creed, and class were utterly transcended as support poured forth from multiple sectors and nations throughout the world [17–21]. By foot, by ship, in bands, by ladies bearing frying pans, the French, Spanish, Dutch, Haitians [22,23], Polish [24], all risked their own lives to support the American cause. Housewives such as Catherine Moore Barry marched straight into battlefields, dressing wounds or even serving as spies [25,26]. And the first to fight and the first to die was not Nathan Hale[d] but Mr. Crispus Attucks (Fig. 2), a former slave who years before had stood up to the institution of slavery and who now stood squarely in the face of fire, where he fell from the revolution's first flurry of gunshots [17,22], the shots heard around the world.[e]

Despite the Empire's military might, despite all their monetary millions, it was this multinational, multiethnic, ragtag team of Americans, bound merely by tenuous threads of an illusory longing, that astonished the world by outranking the most powerful Empire in all of human history [18,20], overwhelming their ranks, not by material means but by a cosmic collective force forged by a united people. Inspired by this one critical moment in time, the world awakened to a new dream for humankind in which human rights would finally reign free. Within just a few decades, dozens of revolutionary uprisings would unfurl throughout the world, setting the stage for the downfall of slavery, serfdom, and other unjust regimes that had for so long so utterly failed to serve the people.

## Lessons from History

Certainly other variables factored into this final outcome. Complex political intrigues and profit margins definitely influenced intentions. Still, without the critical degree of unity that the Americans were able to inspire, this great social transformation would never have been achieved at that moment in time.

In today's pragmatic post-modern world, such fanciful notions of collaboration and commitment are easily dismissed because their positive forces often work imperceptibly, functioning as indispensable yet intangible factors underlying so many of humankind's greatest achievements. Indeed, if we each reflect on our own unique experiences, surely we find that so many of our individual triumphs were fortified by sources of inspiration external to ourselves: peer support in the form of knowledge freely shared, or simply encouraging words from an admired mentor. In my case, peer support has been one of the most crucial sources of strength for me over the years, with the generosity and guidance from friends like David Stevenson, Tom Krummel, Beatrix Wintersteiger, Bob Franklin, Paul Wetter, Janis Chinock, Sakis Theologis, Linda Giudice, Mary Lou Ballweg, and Rami Kaldas especially coming to mind." Even the smallest gesture can convert into the greatest catalyst for awakening our own true potential, a phenomenon that demonstrates just how truly *inter*dependent we are to one another. Therefore, this story about uniting for a cause and believing in big dreams is not

[d] Hale, famous for his last words before dying in 1776: "I only regret that I have but one life to give for my country."

[e] "The shot heard around the world" is the original phrase coined after the Boston Massacre on March 5, 1770.

Fig. 2. Crispus Attucks.

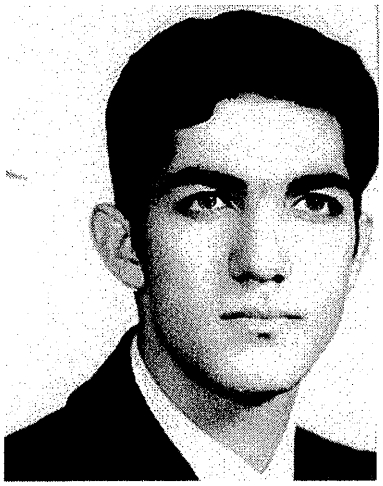

Fig. 3. The young Dr. Camran Nezhat in his 20s.

just for the history books; the power to tap into these infinite sources resides within all of us.

## First Steps in My Journey with AAGL

Indeed, I know this to be true, for when I first met members of the AAGL family, I was so inspired to find that they exemplified these very principles of collaborative camaraderie and aspirational thinking [14]. I was practically fresh off the boat, could barely speak English, and almost still can't! But no one seemed to mind. It didn't matter where we came from or what mother tongue we spoke, because we all understood the voice of a new language that was ringing through the air, the language of minimally invasive surgery (Fig. 3).

This was such a dream; I could not have wished for a more phenomenal fortune than to have stumbled into the AAGL fold, for there was practically no other place on earth that welcomed with such sincerity newcomers and new ideas [3,5,27]. And no other society had in its midst the world's most visionary pioneers, all of whom recognized the deeper significance of laparoscopy, not as a mere technique or technology but as something that signified a revolutionary advance for medicine and society [4].

### *Portent of Troubles to Come*

As it turned out, we shared something else in common: many of us had been relentlessly heckled out of academia, ridiculed as crazy cowboys, hoodlum hoaxsters[f] [2,4,10,28–31]. The days of mockery for me began when I first presented my new ideas of operating off the monitor and demonstrating that the most extensive diseases could be managed laparoscopically. Well, to make a long story short, I was practically chased out of town. For many years thereafter, I languished in publication purgatory, unable to get any of my work recognized [35]. I might have become terribly disheartened had it not been for the sanctuary of the AAGL family, who invited me to present my work at the 1984 annual conference [36]. And so it was this moment that marked the first steps in my long fortuitous journey with AAGL, a journey that has led to some of my most cherished friendships.

Some of our newer members in the audience may not know it, but in these early days, when laparoscopy was just beginning its evolutionary migration from diagnostic to operative procedures, we endured nearly 30 years of scorn and ridicule for attempting to hasten this shift. This hostility stemmed from the abject fear that established classical surgeons must have felt as they witnessed all the surgical knowledge of their lives slipping into obsolescence right before their eyes. Indeed, by catalyzing such profound changes to the veritable empire of so-called classical surgery, operative laparoscopy came to symbolize an unwelcome threat to the entire order of things. As you might imagine, laparoscopists would become some of the most despised medical heretics on the face of the Earth.

## Laparoscopists Take On the Surgical World

It was in this environment of growing suspicion that AAGL, nevertheless, launched its first conference in 1972. It was a smash hit, by the way, that attracted worldwide interest, with more than a thousand attendees, including the living legends of the time: Drs. Steptoe, Frangenheim, and Cohen [4,27,37]. This debut could not have come at a more perfect time because beginning in the late 1960s, physicians began performing substantially more tubal ligations laparoscopically, an unexpected change that gave rise to a proportionate increase in complications[g]

[f] This is somewhat paradoxical inasmuch as during this 1970s timeframe, several of the AAGL founders and early members were established in academia, including Dr. Louis Keith, who was a professor, and Drs. Phillips, Soderstrom, and Rioux, who held associate professor positions.

[g] The historical records of rising complication rates are paradoxical. During the late 1960s, the English-language literature included few articles that discussed in detail increasing complications; nevertheless, the early pioneers recognized this as a growing phenomenon.

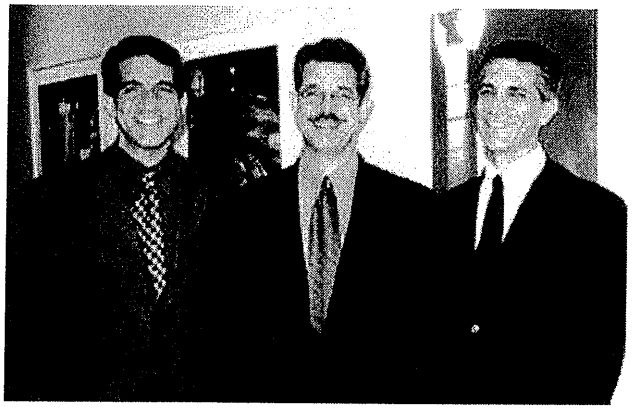

Fig. 4. Nezhat Brothers (from left to right): Dr. Farr Nezhat, Dr. Ceana Nezhat, Dr. Camran Nezhat.

[10,27,38]. It was at this critical juncture that the original founders decided that a society was needed to address all the chaos, in particular the rising complication rates [1,39].

"Complications." There is perhaps no other word in the English language more dreaded by surgeons. We would almost rather kiss a crocodile than speak frankly about this untouchable topic. Despite this aversion, AAGL, in typical fearless fashion, went straight to the heart of things and established, for what I believe was the first time in any medical society's history[h], a tradition of collecting anonymous complication reports from its members and then disseminating the results in print for all the world to see. The AAGL introduced many brilliant organizational innovations, but this singular feature stands out in my mind as one of the most significant innovations of scholarship in modern medicine [2,4,40,41][i]. This exquisite scholarship was absolutely instrumental in reducing complications and refining medical care given to patients because the knowledge gained accelerated learning curves and inspired countless improvements in techniques and technologies.

## Unreasonableness Redefined

Through these threads of AAGL influence, through all their years of service, bringing cutting-edge knowledge to the world, holding those annual Great Debates that served to sharpen our minds, finally gynecologic laparoscopy began edging into the realm of mainstream acceptance, and, as a result, a wild array of new technologies began pouring forth. However, technology cannot walk or talk. We needed pioneers on the frontlines to breathe life into these innovations that were penetrating beyond the edge of reason. Of course, where reason ends and madness begins has always been a matter of opinion. Yet when it comes to progress, one thing is certain; as George Bernard Shaw observed, "The reasonable man adapts himself to the world; the unreasonable one persists in trying to adapt the world to himself. Therefore, all progress depends on the unreasonable man."[j] In this case, it would have made many of our community's early pioneers, such as Drs. Keith, Loffer, Corson, Siegler, Gomel, Levinson, Yuzpe, Brooks, Valle, (and countless others who we, regrettably, just do not have enough time to mention) all stark raving unreasonable for introducing some of our discipline's most significant contributions to the literature, for publishing some of the most influential and earliest textbooks, and for pioneering preeminent "first evers" in microsurgery and advanced laparoscopic procedures [42–48]. These luminaries of our discipline deserve our infinite gratitude because their unwavering courage and visionary foresight launched one of the greatest revolutions in 20th Century medicine.

## Thin, Thin Ice: My Awkward Operative Firsts

There is no doubt that I, too, was slipping toward the edge, going half-mad with exquisite impatience at the slow pace of progress, as the available technologies just would not accommodate all the visions in my head. Indeed, my earliest attempts to work off the monitor using video equipment [35,48] produced such murky images of the abdomen that, at the end of the day, just about everyone was either laughing or crying. Someone once said, If it's green, it's biology; if it stinks, it's chemistry; and if it doesn't work, it must be technology [49]. And believe me, this is certainly how it seemed at the time. With such disappointing preliminary results, it was terribly difficult to convince anyone that operative laparoscopy had a future, that indeed it would be the future of surgery. And because of endoscopy's more than 200-year history [50] as a predominantly diagnostic tool, this made it all the more difficult to see past such limited conceptions. Therefore, the industry partnerships that AAGL encouraged and established with Karl Storz, Johnson & Johnson, Richard Wolf Medical Instruments Corp., and others, came just in time, and we all jumped at the chance to begin collaborating with these giants of industry [5,10]. In fact, I nearly drove Storz reps crazy too, with my incessant pleas for them to somehow make smaller, safer cameras and scopes, not only for my patients' sakes, but also so that everyone would stop laughing at me!

Indeed, these were interesting times for us all as we balanced on the brink, struggling between the exhaustive extremes of dreaming and doubting. Yet, at least we were there together, there upon that thin, thin ice.[k]

## Agony in the Garden[l]: the Great Hardships of the 1990s

However, beginning sometime in the early 1990s, a great gash in that fragile ice soon emerged. Ironically, because we

[h] Hundreds of articles from other disciplines were reviewed to inform this conclusion.

[i] Hundreds of articles were reviewed to inform this conclusion; however, because of limited space, only these 4 references are listed.

[j] From Shaw's play *Man and Superman*, "Maxims for Revolutionists" (1903).

[k] Inspired by the original poetic line, "Are we brave or are we mice, here upon such thin, thin ice." From Koontz D. "Dragon Tears." *Book of Counted Sorrows*. Catskill, NY: 2003.

[l] Title of a painting by Francisco de Goya.

had pushed so far and had achieved so much, the opposition went into a fever-pitched frenzy. Although gynecologic laparoscopists had already achieved some of the most complex operative procedures laparoscopically by the 1980s [42,51–59], it was the famous firsts by Drs. Muhe, Mouret, Saye, and McKernan[m] [10], the world's first ever video-assisted laparoscopic cholecystectomies, that became the proverbial last straw, pushing the dissenters over the edge into a maniacal rage against anything that had "scopy" in its name. This was so unbelievably ironic because at first we had to fight to overcome disinterest; then disbelief; and now this deranged inferno of fury! Of course, by now we were accustomed to all manner of insult; Dr. Semm had been forced to undergo a brain scan, so crazy did his colleagues perceive him [28,62]. And, Dr. Steptoe was called the anti-Christ for daring to delve into the sacred realm of human reproduction [10,63].

As for me, I was accused of advocating dangerous methods that, as one opponent put it bluntly, would end up "killing patients," or as another warned, would "bring God's wrath to the earth" [48]. It probably does not surprise you to know that, eventually, I found myself facing my state's licensing board, practically withering under their penetrating gaze as they demanded to know why I would do complex surgeries laparoscopically when such a "perfectly sound classic" like laparotomy was available: Imagine, all this even though my complication rates, while not zero, were much lower than those performing even simple diagnostic laparoscopy.

### Vicious and Ridiculous Recriminations

Still, the recriminations of the 1990s were entirely different; they had simply turned vicious and ridiculous [60,64–65]. When all was said and done, my brothers, Drs. Farr and Ceana, and I withstood accusations of barbarism, commercialism [30,32–34], medical terrorism, and even a strange, Stanford suspension-ism (Fig. 4). I am actually surprised we were not accused of cannibalism. At the height of absurdity, the Federal Bureau of Investigation, the Internal Revenue Service, the Justice Department, and multiple state medical boards were all chasing after us, all at the same time! I guess they really did believe we were "gangster surgeons."

### The Fight of Our Lives

It was Mark Twain who so wisely observed that "You can't depend on your eyes when your imagination is out of focus."[n] It was through such matters of missing imagination that rendered our opponents utterly blind to the inherent potential of laparoscopy; and all the last 30 years of sound clinical data we had so carefully uncovered, about its ability to free patients from the most crippling outcomes, all were rendered utterly invisible by ossified minds [29,66–72]. "Powerful indeed is the empire of habit,"[o] for nothing would be enough to overcome old beliefs that had been petrified by centuries of unchallenged authority. Instead of throwing out their tired old dogmas, they threw out the plain irrefutable facts.

It has been said that loyalty to old assumptions "never yet broke a chain or freed a human soul."[p] Indeed, if we had not stood up to the establishment, patients would have remained imprisoned in an era when debilitating multiple laparotomies were the norm. And, women would have been kept bound by thousands of years of tradition that presumed menstrual pain to be an inescapable biological destiny.

### Painful Threshold between the Old and the New

"The future is like heaven" noted James Baldwin, "everyone exalts it, but no one wants to go there."[q] And so it was, we had arrived at that painful threshold between the old and the new.

Martin Luther King, Jr., summed up such dilemmas with perfect acuity when he said: Cowardice asks the question, Is it safe? Expediency asks the question, Is it politic? Vanity asks the question, Is it popular? But conscience asks the question, Is it right? There comes a time when one must take a position that is neither safe, nor politic, nor popular; but one must take it because it is right.[r]

None of us, therefore, could walk away from doing what was right. Like so many other revolutionary uprisings, what had begun as a simple story, one about technology, ultimately transformed into a symbolic struggle for human rights, for the rights of our patients to be freed from the injustice of enduring outdated surgical interventions that often ruined lives, and, in so many countless cases, took them too[s] [73–78]. And so we fought; we fought until the bitter end, until the

[m] Dubois, Perissat, Nathanson, Cuschieri, Reddick, and Olsen were also among the first to perform a fully laparoscopic cholecystectomy in the late 1980s.

[n] From A Connecticut Yankee in King Arthur's Court. New York, NY: Harpers & Brothers; 1889.

[o] Publilius Syrus. "Maxim 305," circa 42 BC. Kaplan J, ed. *Bartlett's Familiar Quotations*. New York, NY: Little, Brown and Co.

[p] Quote from Mark Twain. The original is "Loyalty to petrified opinion never yet broke a chain or freed a human soul."

[q] Baldwin JR. From his essay "A Fly in Buttermilk," published in *Harper's*, October 1958, under the original title "The Hard Kind of Courage."

[r] Commonly paraphrased version from a speech by Rev. Martin Luther King, Jr., titled "Remaining Awake through a Great Revolution," delivered at the National Cathedral in Washington, DC, on March 31, 1968. The original quote is "On some positions, cowardice asks the question, Is it safe?' Expediency asks the question, 'Is it politic?' And Vanity comes along and asks the question, 'Is it popular?' But Conscience asks the question, 'Is it right?' And there comes a time when one must take a position that is neither safe, nor politic, nor popular, but he must do it because Conscience tells him it is right."

[s] Although estimates of laparoscopy-associated morbidity and mortality were easily obtained through the AAGL membership surveys, review of hundreds of articles was necessary to find similarly rigorous studies of laparotomy-associated complications.

empire of medical mythology was shorn of its power to imperil people's lives.

For all of these reasons, the move toward minimally invasive surgery has become one of the world's most important human rights movements [10,79–81] because it called into question centuries of unexamined assumptions about pain, patient rights, disease-states, and surgical complications, changes that touched the lives of millions of patients who had suffered too long in the shadows of silence.

## Words of Gratitude

We are all free now, free from those dark days of deepest despair, for today together, we sit astride that very mountaintop we struggled so hard to overcome. To the new generations, to our fellows, and to the residents just starting out, we are all now forever bound together by this hard-won heritage, and all you need now is to carry forward, never fearing to believe in your wildest dreams, never fearing to journey toward those unknown horizons you've imagined, "out beyond a billion suns."[t]

There is just not enough time to mention all of the colleagues whose work and collaborative spirit contributed to our discipline's progress. However, I am grateful to all of my colleagues, past and present fellows, and students; many of whom are here today. This also includes approximately 10,000 surgeons who over the years have attended our post-graduate training courses and lectures, many of whom are here today as well.

Were it not for this network of AAGL friends and family, without the generous encouragement and inspiration from so many of you here today, my own life work surely would ring hollow.

Again, thank you so much for the privilege.

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*Palo Alto, California*

## References

1. Keith LG, Brooks PG, Hunt RB, et al. A tribute to Jordan M. Phillips, MD. *J Assoc Gynecol Laparos.* 2001;8:3–5.
2. Personal correspondence from L. Keith, July 2009.
3. Michels L, Loffer FD. Remembering Jordan M. Phillips. *J Minim Invasive Gynecol.* 2008;15:656–659.
4. Keith L. Putting laparoscopy on the academic map: early and continuing scholarship by the AAGL. *J Minim Invasive Gynecol.* 2007;14:549–552.
5. Cooper JM. A toast to members of the AAGL [Presidential Address]. *J Am Assoc Gynecol Laparosc.* 2002;9:2–5.
6. Phillips JM, Keith LG, editors. *Gynecologic Laparoscopy: Principles and Techniques.* New York, NY: Stratton Intercontinental Book Corp; 1974.
7. Siegler AM, Lindemann HJ, eds; Phillips JM, executive producer. *Microsurgery in Gynecology.* Downey, CA: AAGL Publications; 1977.
8. Corson SL, Derman RJ, Tyrer LB. Fertility Control. New York, NY: Little, Brown and Co; 1985.
9. Gomel V, Taylor PJ, Yuzpe AA, Rioux JE. Laparoscopy and Hysteroscopy in Gynecologic Practice. Chicago, IL: Year Book Medical Publishers Inc; 1986.
10. Nezhat CR. *Nezhat's History of Endoscopy.* E-book. Miami, FL: Society of Laparoendoscopic Surgeons; 2005.
11. Simpson JC, Toufexis A, Wymelenberg S. Medicine: coping with Eve's curse. *Time.* July 27, 1981.
12. McCracken Peggy. The curse of Eve, the wound of the hero: blood, gender, and medieval literature. Philadelphia, PA: University of Pennsylvania Press; 2003.
13. Hindson B. Attitudes towards menstruation and menstrual blood in Elizabethan England. *J Social History.* 2009;43:89–114.
14. Keith LG. Big dreams, clear vision. *J Assoc Gynecol Laparos.* 1998;5: 321–322.
15. de Tocqueville A. *Democracy in America.* Harvey Mansfield and Delba Winthrop, trans, ed. Chicago, IL: University of Chicago Press; 2000.
16. Black Jr CL. A New Birth of Freedom: Human Rights, Named and Unnamed. New Haven, CT: Yale University Press; 1997.
17. Zinn H. A people's history of the United States. New York: Happer; 2003.
18. Braudel F. *Civilization and Capitalism, 15th–18th Centuries.* 3 vols. Reynolds S, trans. 1979.
19. Miller W. A New History of the U.S. New York, NY: George Braziller, Inc; 1958.
20. Kennedy P. The Rise and Fall of the Great Powers. New York, NY: Vintage Books, division of Random House; 1989.
21. McCullough D. John Adams. New York, NY: Simon & Schuster, Inc; 2001.
22. Bennett Jr L. Before the Mayflower: A History of the Negro in America: 1619-1964. Westminster, London, England: Penguin Books; 1966.
23. Broderick FL, Meier A. Negro Protest Thought in the Twentieth Century. Bobbs-Merrill Co, Inc; 1965. Archived at University of California, Berkeley, Institute for the Study of Social Change.
24. Storozynski A. The Peasant Prince: Thaddeus (Tadeusz) Kosciuszko and the Age of Revolution. New York, NY: Thomas Dunne Books; 2009.
25. Ellet EF. The Women of the American Revolution. New York, NY: Baker and Scribner; 1848.
26. Hanaford PA. *Daughters of America.* Boston, MA: B.B. Russell; 882.
27. Soderstrom RM. A history of the American Association of Gynecologic Laparoscopists. *J AAGL.* 2001;8:475–485.
28. Litynski GS. Kurt Semm and the fight against skepticism: endoscopic haemostasis, laparoscopic appendectomy and the Semm's impact on the "laparoscopic revolution". *JSLS.* 1998;2:309–313.
29. Pitkin RM. Operative laparoscopy: surgical advance or technical gimmick? *Obstet Gynecol.* 1992;79:441–442.
30. Barham M. Laparoscopic vaginal delivery: report of a case, literature review, and discussion. *Obstet Gynecol.* 2000;95:163–165.
31. Schifrin BS. Laparoscopic vaginal delivery: report of a case, literature review, and discussion [letter]. *Obstet Gynecol.* 2000;95:947.
32. San Francisco Chronicle, Stanford cancels suspensions of 3 laser surgeons, August 15, 2002. By David Perlman, Chronicle Science Editor.
33. San Francisco Chronicle, Stanford Surgeon's Procedures Raise Ethical and Legal Red Flags/Supporters say Camran Nezhat is a miracle worker — critics call his operations bizarre and barbaric. April 5, 2000.
34. Available at: http://vlex.com/vid/byrne-manov-camran-nezhat-farr-36304601. Accessed April 6, 2010.
35. Carter JE. Biography of Camran Nezhat, MD, FACOG, FACS. *JSLS.* 2006;10:275–280.
36. Nezhat CR. Laparoscopic treatment of disease of the reproductive organs with a laser. Presented at the 13th Annual Meeting of the AAGL. Las Vegas, Nevada; November 7–11, 1984.

[t] Wachhorst W. *The Dream of Spaceflight: Essays on the Near Edge of Infinity.* New York, NY: Basic Books; 2000. An excerpt from the original verse is: "Out beyond a billion suns, across the vast sea of the soul, in search of the ineffable center, the mirror lake in the soft green meadow, the glint in the eye of God."

37. Phillips JM. The revolution in gynecology: celebrating 30 years with AAGL. *J Am Assoc Gynecol Laparosc.* 2002;9:6–8.
38. Soderstrom RM. Female sterilization's impact on laparoscopy. *J Minim Invasive Gynecol.* 2007;14:542–548.
39. Loffer FD. The uniqueness of the man. *J Minim Invasive Gynecol.* 2007; 14:553–554.
40. Soderstrom RM, Butler JC. A critical evaluation of complications in laparoscopy. *J Reprod Med.* 1973;10:245–248.
41. Peterson HB, Hulka JF, Phillips JM. American Association of Gynecologic Laparoscopists' 1988 membership survey on operative laparoscopy. *J Reprod Med.* 1990;35:587–589.
42. Nezhat C, Nezhat F. Videolaseroscopy for treatment of bowel endometriosis, 37th Annual Clinical Meeting of American College of Obstetricians and Gynecologists, Atlanta, Georgia, May 20–25, 1989.
43. Nezhat C, Nezhat F. Safe laser endoscopic excision or vaporization of peritoneal endometriosis. *Fertil & Steril.* 1989;52:149–15.
44. Keith L. Puerperal sterilization. *Obstet Gynecol.* 1976;48:632–634.
45. Rioux JE, Cloutier D. A new bipolar instrument for tubal sterilization. *Am J Obstet Gynecol.* 1974;119:737–739.
46. Corson SL. New instruments: laparoscopic bipolar sterilizing forceps, intrauterine manipulator and lavage instrument. *Am J Obstet Gynecol.* 1976;124:434–436.
47. Soderstrom RM, Smith MR, Hayden GE. The snare method of laparoscopic sterilization: an analysis of 1,000 cases with 4 failures. *J Reprod Med.* 1977;18:246–250.
48. Nezhat C. Presidential Address. *JSLS.* 2005;9:370–375.
49. Anonymous.
50. Bozzini P. Der Lichtleiter oder Beschreibungeiner einfachen Vorrichtung und ihrer Anwendung zur Erleuchtung innerer Hohlen und Zwischenraume des lebenden animalischen Körpers. Weimar, Germany: Landes Industrie, Comptoir; 1807.
51. Clarke HC. Laparoscopy: new instruments for suturing and ligation. *Fertil Steril.* 1972;23:274–277.
52. Cohen BM. The strategy of vascularized transplantation of the fallopian tube. *South Afr Med J.* 1974;48:2097–2104.
53. Gomel V. Laparoscopic tubal surgery in infertility. *Obstet Gynecol.* 1975;46:47–48.
54. Bruhat MA, Mage G, Manhes M. Use of the CO2 laser via laparoscopy. In: Kaplan I, editor. *Proceedings of the Third International Congress for Laser Surgery.* Tel Aviv, Israel: Qui-Paz; 1979.
55. **Hulka JF. Adnexal adhesions: a prognostic staging and classification system based on a five year survey of fertility surgery results at Chapel** Hill, North Carolina. *Am J Obstet Gynecol.* 1982;144:141–148.
56. Semm K. Endoscopic appendectomy. *Endoscopy.* 1983;15:59–64.
57. Nezhat C, et al. A new modality for the treatment of endometriosis and other diseases of reproductive organs. *Colposc Gynecol Laser Surg.* 1986;2:221–224.
58. Reich H, McGlynn F. Treatment of ovarian endometriomas using laparoscopic surgical techniques. *J Reprod Med.* 1986;31:577–584.
59. DeCherney AH, Diamond MP. Laparoscopic salpingostomy for ectopic pregnancy. *Obstet Gynecol.* 1987;70:948–950.
60. Available at: http://vlex.com/vid/byrne-manov-camran-nezhat-farr-36304601. Accessed March 4, 2010.
61. Nezhat C, Crowgey SR, Garrison CP. Surgical treatment of endometriosis via laser laparoscopy. *Fertil & Steri.* 1986;45:778–783.
62. Moll FH, Marx FJ. A pioneer in laparoscopy and pelviscopy: Kurt Semm (1927–2003). *J Endourol.* 2005;19:269–271.
63. Edwards RG. Patrick Christopher Steptoe, C.B.E.: 9 June 1913–22 March 1988. *Biogr Mem Fellows R Soc.* 1996;42:435–452.
64. Smith DC, Donohue LR, Waszak SJ. A hospital review of advanced gynecologic endoscopic procedures. *Am J Obstet Gynecol..* 1994;170: 1635–1642.
65. Seidman DS, Nezhat C. Is the laparoscopic bubble bursting? [letter]. *Lancet.* 1996;347:542–543.
66. Nezhat C, Nezhat F, Nezhat C. Operative laparoscopy (minimally invasive surgery): state of the art. *J Gynecol Surg.* 1992;8:111–141.
67. Nezhat CR, Nezhat FR, Silfen SL. Videolaseroscopy. The $CO_2$ laser for advanced operative laparoscopy. *Obstet Gynecol Clin North Am.* 1991; 18:585–604.
68. Luciano AA, Frishman GN, Kratka SA, Maier DB. A comparative analysis of adhesion reduction, tissue effects and incising characteristics of electrosurgery, $CO_2$ laser and Nd-YAG laser at operative laparoscopy: an animal study. *J Laparoendoscop Surg.* 1992;2:287–292.
69. Martin DC. Tissue effects of lasers. *Semin Reprod Endocrinol.* 1991;9: 127–137.
70. Nezhat F. Triumphs and controversies in laparoscopy: the past, present and future. *JSLS.* 2003;7:1–5.
71. Chapron C, Querleu D, Bruhat MA, et al. Surgical complications of diagnostic and operative gynaecological laparoscopy: a series of 29,966 cases. *Hum Reprod.* 1998;13: 867–782.
72. Soriano D, Yefet Y, Seidman DS, Goldenberg M, Mashiach S, Oelsner G. Laparoscopy versus laparotomy in the management of adnexal masses during pregnancy. *Fertil Steril.* 1999;71:955–960.
73. Hall JC, Taral RA, Hall JL, Mander J. A multivariate analysis of the risk of pulmonary complications after laparotomy. *Chest.* 1991;99:923–927.
74. Nance ML, Nance FC. It is time we told the emperor about his clothes. *J Trauma.* 1996;40:185–186.
75. Short RA. The uses of coelioscopy. *Br Med J.* 1925;254–255.
76. King DS. Postoperative. pulmonary. complications: a statistical. study. based on two years' personal observation. *Surg Gynecol Obstet.* 1933.
77. van't Riet M, Steyerberg EW, Nellensteyn J, Bonjer HJ, Jeekel J. Meta-analysis of techniques for closure of midline abdominal incisions. *Br J Surg.* 2002;89:1350–1356.
78. Brill AL, Nezhat F, Nezhat CH, Nezhat CR. The incidence of adhesions after prior laparotomy: a laparoscopic appraisal. *Obstet Gynecol.* 1995; 85:269–272.
79. World Health Organization. The right to the highest attainable standard of health: substantive issues arising in the implementation of the International Covenant on Economic. *Social and Cultural Rights. General Comment No. 14. Twenty-second session, April 25–May12.* 2000.
80. Human Rights Watch Report. "Please, Do Not Make Us Suffer Any More...": access to pain treatment as a human right. New York, NY: Human Rights Watch; March 2009.
81. Brennan F, Carr DB, Cousins M. Pain management: a fundamental human right. *J Anesth Analg.* 2007;105:205–221.