Evolving Coverage in Reporting Refractive Surgery in the Popular Press

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In medical anthropology, the ability of the press to influence consumer behavior and mold public opinion is referred to as “social control.” Given the influence of the media on our patients, it is interesting to explore press coverage of refractive surgery over the years.

Research in the fields of medical anthropology and media studies have found that one of the major ways one agent can influence the public is through reinforcing and perpetuating a set of preexisting ideas. For instance, one commonly cited example of a historical preexisting idea is that of the world being flat. It took hundreds of years for the public to fully accept that the earth was round even after Magellan’s circumnavigation of the globe. Today, a major idea operating in society is that new technologies always represent significant improvements over methods used in the past. This tendency has been demonstrated in the varying outlook of the press on radial keratotomy and photorefractive keratectomy.

RADIAL KERATOTOMY AND THE POPULAR PRESS IN THE EARLY 1980s

Although the first US radial keratotomy was performed in 1978, the media did not pick up on it until 1980, when the National Eye Advisory Council (NEAC) issued a statement calling for a long-term controlled study to examine its effects. This statement was reported in the New York Times as follows: “The National Eye Advisory Council recently expressed ‘grave concern’ about what it deemed an experimental operation [radial keratotomy]. The Council urged restraint on the part of both ophthalmologists and nearsighted people.” The Washington Post covered the story in a similar way, highlighting only the statement issued by the NEAC: “The National Eye Institute, part of the Department of Health and Human Services, said its advisor expressed concern at a meeting last week that the procedure is being adopted without adequate tests.”

Other articles at the same time, however, seemed poised to champion radial keratotomy. In a piece on the NEAC statement, the New York Times quoted one of the first surgeons to perform radial keratotomy in the United States and focused on his excellent efficacy rate: “55% of his patients function without glasses and 45% show some degree of improvement.” However, no statistics given by the NEAC were mentioned, and a personal testimonial was allowed to stand without mentioning the possibility of controverting evidence. Similar articles appeared in most major newspapers at the time of the NEAC announcement. Thus, less than 2 months after the summer announcement “urging caution,” and before any substantive, peer-reviewed studies were published, the press had generally proclaimed radial keratotomy a safe procedure, reinforcing the prevailing bias toward high technology by mentioning the state-of-the-art diamond blades used in the surgery.

Similarly, the Sunday Washington Post magazine, Parade, ran a lead article about radial keratotomy, heralding it as a safe procedure. The story ran August 17, 1980, just 2 months after the NEAC announcement. The lead paragraph of the Parade magazine story, also known in journalistic circles as the “bait,” recounts a personal testimonial of suc-
cessful radial keratotomy surgery: "Recently in Atlanta, a 38-year-old man, so nearsighted in both eyes that he is legally blind without his thick-lensed eyeglasses, underwent a 15-minute operation called radial keratotomy to cure the myopia in his left eye. Delighted with the results, he was anxious to have his right eye cured." The seven-page article then states that radial keratotomy is a "brief, simple surgical procedure performed with the patient usually awake and only eye drops for anesthetic." The surgery "features a computerized work-up." Each procedure takes as little as 10 minutes and in most cases the patient is awake although tranquilized" [italics added]. The article further strengthens the positive outlook on radial keratotomy by mentioning the ideological conversion of physicians. A leading surgeon was quoted while discussing his trip to Russia to learn the technique. "I came to scoff but I stayed to learn. The results were remarkable. My patient’s personality improved with her vision and she married soon after. He [the surgeon] now performs radial keratotomy."

A reader looks to a newspaper, especially one with a national or even international reputation, as a reasonably objective source to turn to for help in clarifying the often confusing arguments put forth in medical controversies. However, the use of advertising-type rhetoric by the press in its initial reports of new technologies such as radial keratotomy is not uncommon. "The inflated language of the press reports of technological developments is strikingly similar to the language of 'high-tech' ads in magazines and newspapers." This trend occurred throughout the 1970s and early 1980s. In this period, "rare was the article in the popular press suggesting a new development was not the panacea advertised. What is missing is a clear presentation of the role of technology and a clear assessment of its effects."

Although articles overtly biased toward the new radial keratotomy technology were relatively rare in the popular press, pieces that more cryptically favored it appeared in almost all of the major news outlets in the early 1980s. This now muted support for radial keratotomy was perhaps most evident in 1981, when the NEAC decided to issue a formal statement petitioning for a long-term controlled study of the side effects of radial keratotomy. Newspaper coverage of this statement was extremely different from coverage of the NEAC’s policies the previous year (1980).

Radial keratotomy was then portrayed as a safe procedure with an overly cautious government bureaucracy (the NEAC) hurting prospective patients by asking for long-term studies to be done. The majority of space in these articles was devoted to the actual statement issued by the NEAC, as was the case in news articles the year before, but rather to all the protest against the Council by patients who had successful radial keratomotomies. A Washington Post story was typical of the roughly 60 major news outlets that covered the story. Nearly two thirds of the article was devoted to the reasons for the opposition to the NEAC; no rationale for the Council’s decision is given anywhere in the story. "Four thousand Americans have already had this radial keratotomy and most . . . have been able to quit using glasses or contact lenses to correct their nearsightedness."}

**RADIAL KERATOTOMY AND THE INTRODUCTION OF PHOTOREFRACTIVE KERATECTOMY**

In explaining conflicts over technological developments in the popular press, Nelkin observes, "In covering disputes, journalists tend to create polarities: technologies are either risky or they are safe. The quest for simplicity, drama, and brevity preclude the complex nuanced positions."

The introduction of the excimer laser for photorefractive keratectomy (PRK) in the early 1990s provided ample opportunity for debate because it coincided with the completion of several long-term studies of radial keratotomy, most notably the Prospective Evaluation of Radial Keratotomy (PERK) study. The press created a dichotomy, painting a black-and-white picture of PRK and radial keratotomy; photorefractive keratectomy now was pictured as supplanting radial keratotomy as the more "high-tech" procedure. It was portrayed as affording better results than radial keratotomy, which is now represented by the press as an outdated, primitive, and unsafe procedure no longer at the forefront of technology.

Although the PERK study found generally encouraging or, at worst, mixed results in some patients after radial keratotomy, the results of the studies were most often interpreted as unfavorable, allowing for contrast with the excimer laser, which was also gaining media notoriety at the time. In articles reporting the results of the PERK study at 10 years, there was a tendency to emphasize only the negative findings. The Commerical Appeal ran this headline: "Corrective Eye Surgery Leads to New Problems." Reuter's News Service declared: "Myopia Surgery Patients . . . Need Reading Glasses." The Atlanta Journal and Constitution, although remarking that the PERK study overall

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amounted to “good news,” referred to the “fatal flaws of radial keratotomy that result from destabilizing the eye.”16 “Fatal” is not a word one includes in an article about surgery unless a definite message is implied.

Most news outlets highlighted the negative aspects of the radial keratotomy studies, probably as Nelkin points out, because expected results are not considered as newsworthy by editors and those in control of media services.17 A search on the Lexis-Nexis computer database of 650 major news sources found 393 references to the PERK study on the long-term effects of radial keratotomy. Of these, only three had headlines that emphasized the high efficacy rate. More than 200 were similar to those mentioned earlier, highlighting the “unexpected” or “negative” results.

In early September 1992, the Washington Post devoted another story in Parade to radial keratotomy. This story, however, contradicted the view presented in the article it ran on August 17, 1980, almost 12 years earlier. Instead of the man who was “delighted with his procedure,” we are introduced in the lead paragraph to another patient, one who “wishes he never had the surgery. Although he no longer needs glasses, he is now troubled by poor night vision and he sees starbursts around streetlights and other ghost images in dimly lit places. ‘I’ve had to reorder my life,’ says this patient, who says he no longer drives after dark and has trouble seeing in the Metro or reading plates in Museum Halls.”18 Whereas risks seem to have been understated in earlier press coverage, they seem now to be overly dramatized.

Another example of the popular press manipulating the image of a procedure is seen in its treatment of medical advertising. Recently, when discussing the subject of advertising and radial keratotomy, the press suggests there is something undignified and even duplicitous about the ads. Advertising is seen as something radial keratotomy surgeons have to do to compensate for the lack of success of the surgery itself.

One typical method the press used to undermine the credibility of radial keratotomy advertising is selective quotation. A feature story last year linked radial keratotomy advertising to greed, portraying surgeons whose sole aim was profit, even at the expense of their patients’ health. The Washington Post quotes a professor of ophthalmology: “Radial keratotomy is simple and undeniably lucrative, a welcome replacement from the lost income derived from cataract surgery fees that have in some cases been halved by Medicare.”19 The article does not mention any opposing opinion.

Juxtaposed with this image of a profit-motivated physician is the specter of misleading advertising campaigns. The next paragraph of the story reads: “I am opposed to the high visibility advertising and promotional campaigns that make patients think it’s a safe and effective procedure.” This quote is attributed to a physician who specializes in repairing damage done by radial keratotomy surgery. To examine the implications of identifying the ophthalmologist in that way, I ask a question: Would you undergo a procedure whose ill effects have given rise to a new medical subspecialty?

THE EMERGENCE OF PHOTOREFRACTIVE KERATECTOMY IN THE PRESS

The derogatory treatment of radial keratotomy is only part of the story, for if the press does tend to create polarities, then the journalistic demise of radial keratotomy must be contrasted with the rise of PRK. References to PRK in the popular press are always closely tied to references to technology or computers. The London Guardian Times serves as the best example of linking PRK to “high” technology. The July 26, 1994, edition reminds us that “Only 30 years ago the laser was more synonymous with science fiction than the operating theatre.” Hinting that science fiction is now reality, we are told the 15-second operation was “guided by computer.” The comparison of computerized laser versus human technique guided by a hand is continually discussed. The laser surgery “gives computer accuracy . . . and virtually eliminates the human error factor.”20

Despite the strong association of technology with PRK, it is what is not mentioned that is most noteworthy. Although PRK certainly does involve a “high-tech” laser, has been demonstrated safe and effective in rigorous clinical studies, and it is true that a computer does calculate laser energy delivery, many important aspects of the procedure remain under the individual surgeon’s control. This fact is not mentioned in any of the 120 articles found in the various news sources linking PRK and technology.

CONCLUSIONS

Our intention has not been to exhaustively review and judge press coverage of refractive surgery in the past or present but only to alert our colleagues to themes of press coverage of science in general and ophthalmology in particular. In the mid-1980s, social researcher Walter Lippmann summed up the power of the press by stating: “It has the power to determine each day what shall seem important and what
all be neglected. [This is a] power unlike any that
has been exercised since the Pope lost his hold over
the secular mind. In science, the role of the press is
to present a balanced dialogue with the reader who,
in turn, should read with a skeptical and incisive
mind, understanding that what is “fact” today may
be discredited tomorrow.

We have yet to see how the popular media will
present the long-term studies of PRK. Will they
emphasize only the negative aspects of the surgery?
Will this negative treatment be heralded by the
coming of yet another refractive procedure that will
then be at the forefront of technology, thus making
PRK look primitive? Open the morning paper and
read all about it!

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