[Editorial]

Internet Medicine

It's hard to believe how much the medical world has changed in the last 25 years: from inpatient hospital-based practices to outpatient centers, health management organizations, and health saving accounts. As the venues have transitioned and the amount of information available on the Internet has grown, many health care consumers have chosen the Internet as their preferred source of medical information. Some have chosen the Internet due to the spiraling cost of traditional medicine, while others distrust physician sources. A study conducted in 12 countries by *Bupa Health Plus*[2] found that nearly one-half of the people seeking Internet medical information do so to make a self-diagnosis; 75% of these do nothing to check the accuracy of online medical advice. With the current cost of medical care and the number of uninsured, it is not surprising that people search for sources of medical information outside their doctors' offices. What is concerning is the self-diagnosis based on the Internet information. After all, anyone, even a 7-year-old, can set up a Web site.[10] There is no guarantee that medical information online is accurate, let alone helpful. In medicine and in other matters, wrong information can hurt someone.

Part of the problem with Web medicine is that there is often no separation between the marketing and the medical science. A number of studies have addressed the issue, including Pandolfini et al,[9] by giving readers guidelines on how to surf the Web for good sites and studies. Since I am an online "immigrant"—that is, I did not grow up on the Web—I spent some time recently researching some hot topics and scams. Vaccinations and their relationship to autism have recently been discussed extensively due to a research scandal in Britain.[8] A very interesting report by Wolfe et al[12] examined 22 antivaccination Web sites. All 22 sites claimed that vaccinations caused idiopathic illness without scientific evidence. Asthma, seizures, brain damage, attention-deficit disorder, diabetes, autism, and sudden infant death syndrome were all attributed to vaccines. Seven of the sites claimed that the vaccines were manufactured with aborted fetal tissue. Twenty-one of 22 sites claimed that vaccines even erode immunity. The sad truth is that much of the medically unsophisticated public cannot differentiate these claims from scientific fact gleaned from well-designed clinical studies. The medical profession should be concerned about this. It would be a mistake for the medical profession not to recognize the power of Web communications. Recent political developments in the Middle East emphasize how powerful this communication tool can be. Right or wrong, good or bad, the Internet empowers many.

With these factors in mind, the medical profession should try to educate the public on how to use the Web safely to search for medical information. The American Academy of Orthopaedic Surgery Web site[1] recommends comparing information on the Web with other sources, checking the credentials of the author or organization presenting the material, being cautious of Web sites that advertise and sell products, and, of course, talking with your physician about information on the Web.

With all of the reservations listed above, it was interesting for me to discover online health communities (OHCs) after reviewing the article by Hambly et al titled "Activity Profile of Members of an Online Health Community After Articular Cartilage Repair of the Knee."[4] The focus of the study was participants from the KneeGuru OHC,[5] which had 22 000 registered participants in 2007-2008. Two hundred and one individuals that had undergone either an articular cartilage repair (ACR) procedure or an anterior cruciate ligament reconstruction (ACLR) completed an online questionnaire based on the Tegner[11] Activity Scale. At a minimum of 24 months postoperatively, the ACR group had a median Tegner score of 3, compared to a 6 for the ACLR group. A Tegner score of 3 indicates a return to basic activities of daily living, including walking, light work, and low-impact exercise, but no return to competitive sports. This was of great interest to me, having undergone microfractures 18 and 4 years ago with what I thought were pretty good results.

These results are quite telling because most participants in this OHC underwent the procedure to return to sports and exercise. Furthermore, current reports suggest a much higher level of function after ACR.[5,7] So, where is the truth? Are the clinical reports more indicative of the results because the OHC is populated with patients that are not doing well and are searching for answers? Or, is the OHC information more accurate and the published clinical results tainted by publication bias: specialty centers selecting study inclusion criteria that favors selection of patients for study participation who have the best prognosis?

I am not sure where the truth lies, but I can see the value of Web-based patient-desired information and the probable flaws in the medical scientific literature. It's probably best to keep an eye on both while realizing their inherent weaknesses and limitations. Besides, the Web does feature some approaches that are worth reading, such as this one: "Top 10 Reasons to Fire Your Doctor."[3]

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