Publishing Radiology Educational Material on the Internet: Analysis of E-mail Responses

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WE HAVE published a basic primer on the temporomandibular joint (TMJ), the TMJ Tutorial, on the World Wide Web (WWW) server of the Department of Radiology at the University of Washington (<http://www.rad.washington.edu/Anatomy/TMJ/TMJ.html>). The tutorial includes basic information about the anatomy of the TMJ, the pathophysiology of TMJ dysfunction, and the arthrographic, computed tomography (CT), and magnetic resonance (MR) imaging appearance of the normal and dysfunctional joint. The tutorial originally was designed on a Macintosh computer (Apple Computer, Cupertino, CA) as a animated computer exhibit,¹ and was intended for a radiology audience. Many non-radiology persons, however, have found the tutorial on the internet and have sent us e-mail.

MATERIALS AND METHODS

The e-mail messages about the TMJ Tutorial were answered and collected by one of us (TG). The messages were tabulated in a FileMaker Pro database (Claris Corporation, Cupertino, CA).

RESULTS

Ninety-eight e-mail messages were received from March 21, 1995 to February 27, 1997. There were approximately 60 male and 26 female respondents (the gender of 12 respondents could not be determined). Most of the respondents were from the United States (75), but there were 7 responses from Europe. A number of the respondents (20) were dentists, physicians, or students; 8 respondents were other educators or web masters; and 54 respondents were nonmedical/nondental persons (mostly patients, or family members or friends of patients with TMJ dysfunction). Thirty-four of the respondents thanked us for the information or stated that the information was very helpful. The most common reasons for sending the e-mail message were problems viewing the tutorial (14), soliciting clinical advice about personal TMJ problems (35), asking for a clinical referral (18), or asking for permission to use our tutorial in other web sites or educational presentations (14). Most of the problems using the tutorial were secondary to

an image-mapped title page and running QuickTime animations on non-Macintosh computer systems.

DISCUSSION

We were surprised at the number of patients who accessed our tutorial and asked for clinical advice about their TMJ problems or asked for a referral (50% of all respondents). Our tutorial is not advertised, but is listed in the many internet directory services. We believe most patients and other nonradiology persons found the tutorial by searching for TMJ-related information on the internet.

The problems reported by users diminished markedly when we converted an image-mapped title page to a more traditional layout, and when QuickTime support became more common on non-Macintosh systems. In general, we answered requests for clinical advice with a brief message stating our inability to provide such information. Unfortunately, we do not have a list of other TMJ resources available on the internet.

We recommend that radiological educational material published on the internet be designed with a general audience in mind. The number of e-mail messages probably can be reduced if the material only uses widely available HTTP features, and if links to other related information are included. The large number of requests for clinical advice or a referral suggests that properly designed educational material may result in self referrals to the parent institution if an appropriate mechanism is in place.

REFERENCE

1. Gillespy T III, Dolwich MF: Normal and abnormal function of the TMJ: An animated tutorial. Presented at the 72nd Scientific Assembly and Annual Meeting of the Radiological Society of North America, exhibit #233, Chicago, IL, November, 1986

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