

Unimodal Medical Information Management System for Patients of Cleft Lip and Palate.

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It is widely recognized that well-coordinated long term management and care are important in treatment of cleft lip and palate patients. The fact that many of the patients receive long term treatments in various divisions and institutions, makes accurate recording and transferring of their cumulative medical information extremely difficult. We adapted a "unimodal" information storage system for management of such cases to that the best treatment might be employed on the basis of accurate information. Attaining more efficiency in retrieval and transfer of a given patient's medical information which increases with passage of time, an optical magnetic disc can be available to store the huge volume of medical information of the patients with cleft lip and palate. Recording on an optical magnetic disc was done as follows: visual image such as X-ray film and color pictures were taken in by videocamera and film scanner, and voices by tape recorder via digitizing device. CT and MRI image data were able to be recorded on an optical magnetic disc directly because these image data are already digitized. Facial morphology and plaster model of dental arch were scanned by laser beam and three dimensional data were recorded. Thus every kind of the medical information of cleft lip and palate patients was stored to a magnetic optical disc unimodally. Laboratory data, X-ray and color pictures are able to searched in a short time. Voices are able to be heard through the computer-attached speaker. CT, MRI, facial morphology and plaster model are observed on CRT. Furthermore we can make the life size model of the patient's skull and plaster model using three dimensional data and modeling machine. By use of such a system, accumulation of medical information at different clinical decisions will be greatly facilitated; intra-hospital exchange of information, and its transfer to another hospital, will also be conducted without difficulty.