



**“I JORNADA VIRTUAL NACIONAL E INTERNACIONAL DE EDUCACIÓN E INVESTIGACIÓN EN CIENCIAS MORFOLÓGICAS”**,

10 al 30 Noviembre 2012

Sitio web: [histologiavirtual.com.ar](http://histologiavirtual.com.ar)

Auspician: Facultad de Ciencias Médicas de la Universidad Nacional de Córdoba, Argentina (RHCD 301/12), Asociación Argentina de Anatomistas (Miembro de la Asociación Panamericana de Anatomía), Fundación Facultad de Ciencias Médicas, Córdoba, Argentina y Sociedad de Medicina Interna de Córdoba, Argentina.

**Holography in Clinical Anatomy Education: A systematic Review**

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**ABSTRACT**

The visualization of anatomical concepts is an integral part of both medical education and clinical practice. One of the most recent discoveries not used in gross anatomy instruction is a three-dimensional (3D) holographic video projection. A literature review was performed in order to look at the current and potential future uses of this technology within the realm of education and clinical practice.

**OBJECTIVE**

To systematically review the role of holography in undergraduate and postgraduate anatomy education according to international literature.

**MATERIAL AND METHODOLOGY**

Systematic review was performed on pubmed / MEDLINE scientific search engine. Key words included hologra\*, AND anatom\* (36) and Hologra\* AND clin\* (7). A total of 43 publications were identified in the English language as being applicable to our review.

Types of studies included those between level 2b and level 5. No other levels of evidence were found in any language.

**RESULTS**

Our literature review showed that holographic technology was currently being used for clinical and educational application. Clinically, cardiac valve pathology was being identified with the use of 3D hologram echocardiographic images.

Educationally, this technology was being used to aid the understanding human neuroanatomy.

The future use of holographic technology in medicine and education could potentially extend from its use in anatomy educational material by using 3D holographic imaging, allowing students to visualize intricate structures with greater understanding. The demonstrator can interact with the 3D image or to create a 3D anatomical display for clinical diagnostic use.

**CONCLUSION**

This paper introduced the hypothesis of a novel teaching modality using 3D holographic technology in gross anatomy instruction, with a significant potential within clinical and medical education settings.

This technology has the capacity to set the new gold standard of anatomy instruction, and has the potential to eternally alter the face of both medical and patient education.