Improvement of neuroanatomy learning in first/second year medical students using Brain SUITE(R)-aided lessons

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There is consensus that neuroanatomy is one of most difficult branches of the undergraduate medical core curriculum. Even though interactive and multimedia teaching has now become available for the study of neuroanatomy, it is still hard to achieve a deep three dimensional comprehension, as it would be desirable. Therefore, in order to either improve neuroanatomy learning and students’ motivation, neurosurgical images acquired using the Brain SUITE® operating theatre have been illustrated within the context of integrated neuroanatomy, neuroradiology and neurosurgery lessons of second year-course medical students at Sapienza University of Rome. Students’ agreement and satisfaction were evaluated by means of an anonymous questionnaire, according to the Likert scale.

The questionnaire showed that textbooks, atlases and CD-ROMs are useful didactic tools for the general neuroanatomical knowledge, and to a lesser degree for the comprehension of topography. Students much appreciated the integration of neuroanatomical and neurosurgical images with the aid of the Brain SUITE® which made lessons challenging and innovative. In addition, the global evaluation of real inpatients, their surgery and their pre- and post-operatory periods, make students feeling as part of their future professional reality, further stimulating them to a deeper study. This basic-clinical and multimedia integration thus represents a good example of translational teaching.

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