

Review of CD Rom

The Virtual Surgeon: ACL Reconstruction Y. Mulla

THE VIRTUAL SURGEON: ACL RECONSTRUCTION

Professor George Bentley ChM FRCS, Russell E Windsor MD,
Mr Andrew Williams FRCS(Orth); 9-150 + VAT(UK)
The Virtual Surgeon - 3D Anatomy of the Knee 9-69 + VAT(UK).
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“The Virtual Surgeon consists of a ground breaking series of CD-ROMs, which aims to provide surgeons with a new and powerful training tool. It provides surgeons with the most accurate and realistic model of the knee available, and our developments in animation allow them to see all aspects of the surgical procedure.

Actual surgical instruments have been translated into computer representations and animated, producing an accuracy in the portrayal of surgery never before achieved. Data for the anatomical model of the knee was obtained from the US National Library of Medicine's Visible Human project, meaning that real human data is worked upon by real instrument data.

Instruments, as well as flesh and bone, can take on a translucent appearance to expose the interior views. Surgeons can halt the procedure, review what has gone before, and return, without losing the precision of detail. They also have complete flexibility when using the 3D anatomical model, from which one may peel structural layers, rotate, tilt, zoom in and out, and label any part of the knee.”

Most teaching material in orthopaedics focuses on sound theory and practice, involving basic understanding of anatomy and function, general interviewing skills, particularly those of obtaining a good history and sound clinical technique. Teaching and learning methods include didactic lectures, tutorials, seminars, bedside learning and laboratory work, reinforced by textbooks, journals, cadaveric specimens, patients and simulated models. Recent advances include use of the internet and CD-ROM. The Virtual Surgeon is an interactive

CD-ROM produced in 1998 by Professor George Bentley, Russel Windsor and Andrew Williams which gives broad coverage of the different methods of anterior cruciate ligament (ACL) reconstruction. The anatomy, biomechanics, diagnosis and management are included. Apart from the gadgetry used to manipulate the three dimensional images of the knee, one can export images of anatomy and surgery for use in documents and presentations and this provides a distinct advantage for the teacher.

This CD-ROM is for the surgeon who already has sound knowledge of the anterior cruciate ligament and, preferably, has already been involved in such surgery. The background knowledge of the basic sciences with regard to the ACL then makes it easy to appreciate the images on the CD-ROM.

To make efficient use of this CD-ROM one has to be computer literate and have available the necessary hardware and software for access. This may be difficult in our circumstances, in the developing world, where a relative lack of computers and training may affect access to this method of learning. It may be easier to revert to printed material in a textbook. This CD-ROM is a useful additional teaching tool, however, and should prove useful both to individual orthopaedic surgeons and Medical Schools.

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