

A new generation HD recording system OPERIO[®] at Medical Topia Soka
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Operation using HD image has been adopted in recent years, however, there are still many problems in recording, saving, searching and editing data. We have installed a new generation recording system OPELIO[®] (Seventh Dimension Design, Inc.), and here in report its performance in the clinical practice.

OPELIO[®] is a video recording system, which distributes the data to the selected PC on a real-time, store images in a sophisticated way.

The main features of OPELIO[®] are introduced below.

- (1) Long time recording of HD image is possible. The compression format can be selected H.264. With H.264, 4 hours of recording takes about 10GB and image quality is as high as native HD image. With a server set up in our hospital, it is possible to store large volumes of videos. They are firstly saved in the main server (15TB, possible to record 6,000 hours), the data and automatically further compressed to 1/5 during an arbitrary period of time by the timer and transferred to the sub-server (5TB, possible to record 10,000 hours). That made it possible to save and manage large volumes of videos easily.
- (2) It is possible to automatically retrieve information such as patient ID and surgery by connecting the hospital system.
- (3) Easy data search and account management
- (4) It is possible to watch the images in other rooms by real-time data transfer.
- (5) With the index marking function, edition can be expedited.

At our hospital, the system is connected to microscope and endoscope, and movies are distributed on-demand to the office and the explanation room and used in the video-conference. That made it possible to provide explanations to patients' families by using movies immediately after the operations. And because of the high degree image, it became possible to make use of it for education and presentation. Additionally, we have set up the server in our hospital, it became no longer necessary to keep the storage space of video tapes and DVD, which ensured the safety and shortened the search time.