

Radioisotope Dacryocystography

A. KUBO*, T. ISHIDA**, F. KINOSHITA**, A. MAEKAWA** and M. SHIBATA**

**Department of Radiology, Keio University School of Medicine*

***Ohkubo Municipal Hospital, Tokyo*

Radioisotope dacryocystography was performed in 22 patients having symptoms of obstruction in the lacrimal drainage system. 21 patients of them had also contrast dacryocystography and a comparative study was done between two procedures.

About 200 μCi of $^{99\text{m}}\text{Tc}$ -pertechnetate in 0.02 ml saline solution was used as an eye drop for each eye. The patient's eyes were scanned sequentially at 0, 5, 10 and 15 minutes after radioisotope administration. The instrument and collimator used in this study were scintillation camera (Toshiba GCA-201) and pinhole collimator.

In normal cases, the activity was visualized in the nasolacrimal duct immediately after instillation of the radioisotope, while in abnormal cases

delayed drainage or blockage of radioisotope flow was observed.

There was a good correlation between radioisotope dacryocystogram and contrast dacryocystogram. However, four of these cases did we observe abnormal scan but normal contrast dacryocystogram. The reason for this discrepancy is that the contrast dacryocystography is done under manual injection pressure while radioisotope dacryocystography is done under physiologic condition. Therefore, we think that radioisotope dacryocystography is perhaps superior to contrast dacryocystography for detecting lacrimal block, especially in the cases having functional and anatomic block.