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Cross-Table Cervical Myelography: A Technique to Improve Visualization

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Two years ago, Reicher et al. [1] proposed a new technique for cervical myelography. During the last 15 years, another, easier technique has been used at Glostrup Hospital. An enema bag filled with a weak contrast solution is placed upon the shoulder of the patient, equalizing the radiographic exposure of the cervical spine and shoulder.

The technique of cervical myelography involves lateral puncture between C1 and C2 with the patient in a prone position. Subsequently, contrast medium is injected during lateral fluoroscopy. The tabletop is balanced so the contrast material does not run into the head or downward through the thoracic spine. An X-ray exposure is made of the upper part of the cervical spine. A second image is taken of the whole cervical spine, including the upper part of the thoracic spine. A good, nearly homogeneous exposure is obtained of the whole region with the bag placed on the patient's shoulder (Figs. 1 and 2). The radiographic quality is improved because the bag equalizes the opacity of the shoulder and the cervical spine.

The plastic container is a 2500-ml bag normally used for barium enemas.* The solution is 40 ml of Urografin/Renographin 45% contrast mixed with 2500 ml of water. This results in a bag 10–11 cm in width when applied over the patient's shoulder.

The difficulties in obtaining good lateral views at C6–T2 are well known, and we are quite pleased with the results we have obtained for several reasons. Imaging contrast material in the C6–T2 region is of utmost importance, and eliminating any patient movement nearly assures that the contrast medium will stay in the cervical region and not move up or down the spinal tract, necessitating a second injection. Moreover, there is no patient discomfort. The "push-up view" demonstrated by Reicher et al. [1] requires the patient to elevate both shoulders, which causes some movement of the trunk. Many patients will not be able to do this maneuver because of pain, weak arms, or perhaps paresis in one or both arms. By using this contrast bag, no patient movement is required; hence, there is no patient discomfort.

In conclusion, the bag containing contrast material and water, which is placed on the patient's shoulder, affords optimum radiographic findings with a minimum of patient discomfort.

REFERENCE

1. Reicher MA, Halbach VV, Bentson JR, Helmer E. The push-up view: a superior cross-table lateral projection for cervical myelography. *AJNR* **1986**; 7:899–900

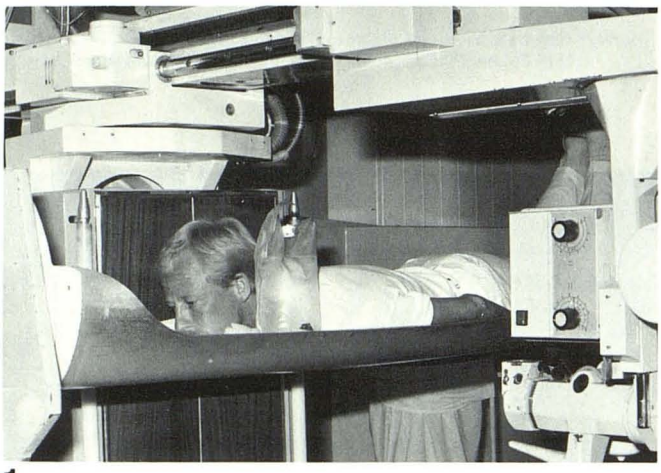

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Fig. 1.—Contrast bag is placed beside patient's neck and X-ray is taken of the whole cervical and upper part of thoracic spine.

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Fig. 2.—View of cervical and upper thoracic spine with contrast bag placed at patient's neck.

* Manufactured by EZ-EM Co., Westbury, CT.

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