

lumbar complaints). All myelograms were carried out using a bi-plane fluoroscopic unit with conventional and 70 mm rapid sequence spot filming device taken at one second intervals in continuous movement from extreme flexion thru extreme extension of the neck.

The bi-plane fluoroscopic unit allows for easy and correct lumbar subarachnoid needle puncture. It provides for ideal positioning of the clivus to prevent overflow of the contrast material into the middle cranial fossa and markedly shortens the examination time without sacrifice of film quality.

This technique gives a good functional evaluation of the spinal cord and subarachnoid spaces and its relations to the surrounding bony canal, dura, ligaments and nerve root coverings while altering the head and neck positions which are otherwise difficult to be studied by conventional methods. In hyperflexion, there is narrowing and elongation of the cord and widening of the subarachnoid space. The dura and posterior longitudinal ligaments and ligamentum flavum as well as the nerve rootlets are stretched. In hyperextension, the cord is shortened and its cross-section is increased with relative narrowing of the subarachnoid spaces. There is ligamentum flavum infoldings and ventral bulges of the subarachnoid space.

Patients with cervical nerve root compression show the nerve root changes best when the nerve roots are stretched in the position of flexion. The changes of the spinal cord and ligamentum flavum are better demonstrated in hyperflexion maneuvers.

#### The Effect of Anterior Extradural Masses on Blood Flow in the Anterior Spinal Artery.

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The pathophysiology of the myelopathy seen in severe cervical spondylosis is not known. One widely held theory proposes obstruction of the anterior spinal artery by hypertrophic spurs leading to ischemia of the cervical cord. To evaluate this hypothesis, we have introduced percutaneously small Fogarty balloon catheters into the anterior epidural spaces of dogs and monkeys. Inflation of the balloon displaces the spinal cord posteriorly and simulates anterior epidural masses. The effect of varying

degrees of inflation on flow in the anterior spinal artery and the central perforating arteries has been evaluated by selective spinal cord arteriography and by in vivo perfusion studies. The results of these studies will be presented.

#### Post-Operative Pseudodiverticula of the Cervical Subarachnoid Space.

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The variety of surgical procedures available for the amelioration of myelopathy incident to cervical spondylosis has been largely responsible for an increased demand for pre-operative roentgenologic assessment of the spinal cord and its environs. At this medical center gas myelography has proven the procedure of choice and has also been advantageous as a means of post-operative evaluation. As a result of this examination a sac-like continuation of the subarachnoid space has been demonstrated in certain patients following surgery. The purpose of this paper is to describe these pseudodiverticula and to discuss the possible etiology and observed sequelae.

#### Spinal Subdural Empyema.

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Infectious processes in the epidural space of the spinal cord, while uncommon, comprise a well recognized syndrome both clinically and radiologically. Much less common, but equally devastating if not recognized are subdural empyema.

Myelographically, subdural empyema cannot be distinguished from epidural empyema. The extra-arachnoid subdural space is not discussed separately from the extra-arachnoid epidural space in standard texts on myelography probably because lesions occur so extremely rarely in this compartment.

However, this case stresses the importance of this compartment and poses the question as to whether Pantopaque myelography can distinguish between sub and epidural empyema.

## Corrigendum Notice

Neuroradiology, Vol. 3., No. 4, Pages 216—223. Paper by Trevisan/Dettori, "Diagnostic Problems of Cerebral Metastases".

Some figures of the above mentioned paper were misnumbered by our printing house. The correct numbering is stated below:

Fig. 4	has been confused with	Fig. 7 a
Fig. 5 a	„ „ „ „	Fig. 7 b
Fig. 5 b	„ „ „ „	Fig. 8 a
Fig. 6 a	„ „ „ „	Fig. 4
Fig. 6 b	„ „ „ „	Fig. 5 a
Fig. 7 a	„ „ „ „	Fig. 5 b
Fig. 7 b	„ „ „ „	Fig. 6 a
Fig. 8 a	„ „ „ „	Fig. 8 b
Fig. 8 b	„ „ „ „	Fig. 6 b

Fig. 6 a has to be turned by 90 degrees to the left and Fig. 5 b has to be turned by 90 degrees to the right.