6-7th sec. after injection of contrast media into the common carotid artery.

2) In cases both of hypotension of blood pressure (systolic pressure was lower than 80 mmHg) and of intracranial high pressure (more than $300 \text{ mmH}_2\text{O}$) opacification of these veins was markedly delaying.

3) Normal variations in this system were subdivided into four types.

4) Among various elements of the cerebral deep venous system the internal cerebral vein was most frequently visualized (96.9% of all cases), secondly the septal vein (76.9%), then the thalamostriate and the basal vein in order (75.9% and 67.9% respectively).

5) To localize any one of space-taking lesions was easily performed by displacement of the anterior cerebral artery with that of the deep venous system, of those as septal vein, thalamostriate vein, internal cerebral vein and vein of Galen.

This analysis was of most value to detect tumors which occupy the more deep, subcortical place in their extension.

103. Clinical and Investigative Study on Intra-Cranial Selective Arteriography

(Report III)

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A newly devised special three graduated needle was introduced in previous presentations. Further clinical investigation proved that this method can be applied to the patients who has suspected lesions at around the anterior pituitary region. Penetrating arteries originating from the internal carotid artery can be visualized better in this method.

This method was applied to 7 clinical cases without causing complication. Method which to feed the catheter over the guide wire can possibly cause an injurious affect to the arterial wall, may lead into the thrombotic change which can be fatal. This method however will make a rather sharp cut through the arterial wall and this probability is small. This catheter tip may be able to introduced further peripherally and this can bring about more interesting results. This examination is being carried out under general anesthesia in order to avoid the psychological fear to the patient but there are many elements can be improved in order to use it in more clinical and experimental materials.

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