CVD (table). However, the subgroup of epileptic patients with convulsions, occurring within a period of several hours to three days preceding the lumbar puncture showed a significantly enhanced mean level of SIR. Linear regression of values with time interval between convulsion and lumbar puncture revealed that CSF levels were negatively correlated with intervals (fig.). Both, slope of decline and regression coefficient where quite similar in a subgroup of CVD patients, studied within five days of a hemispheric infarction.

Our findings contrast with the negative results of Beck et al. who, compared "ictal" levels (one to two hours after generalised convolution) with "interictal" levels (one to four days after convolution) in the same patients. Interictal levels of SIR in the lower normal range were reported earlier by Kohler et al in lumbar fluid3 and by Wolf in ventricular fluid4 of epileptic patients. In convulsing rats cerebral CSF levels of SIR increased within five minutes and decreased after 30 minutes,8 an increase in lumbar levels in humans can only be expected after the ventriculo-lumbar transport time of about two hours,9 and an alteration of release of SIR may show a much more protracted time course due to postictal depression or other metabolic factors. According to our observations, normal lumbar levels of SIR can be expected within three to five days after the acute event.

Although the number of our patients is small, we conclude preliminarily that 1) lumbar levels of SIR increase after generalised convulsions in epileptic patients; 2) this increase is non-specific with respect to seizure generating mechanisms and similar to increases induced by other conditions of acute tissue hyposxia, for example, cerebral infarctions; 3) the negative findings of Pitkänen et al5 could be explained by sampling "ictal" and "interictal" levels at inadequate time intervals.

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Letters to the Editor

Autoscopy in hemianopic field

Autoscopy is the visual perception of oneself or part of one's body into the external visual space. Although this is the conventional definition, autoscopic phenomena need not always be visual, nor need it be perceived in front of the viewer. It has been described in normal subjects, in organic neurological, functional (migraine, epilepsy) and psychiatric disorders. Autoscopy in focal cerebral lesions is a rare event, and autoscopic images appearing in the hemianopic field are still rarer. Our case had a right occipital infarct with autoscopy in the left hemianopic field.

A sixty year old male was admitted with a history of bifrontal throbbing headache which started suddenly two weeks before. About one week after the onset, the headache became worse and almost simultaneously the patient started seeing his own image in front of him on the left side. Five days later, at the time of admission he was able to give a detailed account of his experience. The image first appeared at a distance of about 30 cm in front of him, more towards the left, and persisted for three to four minutes. He could identify the face and upper part of the body including the colour of the shirt and the face. Thereafter, it appeared for a few minutes several times a day. There was no warning, and no general pattern to the frequency, time of occurrence, or movements performed by the double. On one occasion, he saw his "double" while he was brushing his teeth. At another time he was sitting on his bed and saw the image turning around and walking away. The image always appeared to the left side in front of him, and disappeared when the patient closed his eyes. At first the patient's emotional reaction was one of anxiety and amazement but later he became indifferent to the presence of "his companion". The patient did not drink alcohol nor use psychotropic drugs. There was no history of vascular headache or psychiatric disorder.

The general thought pattern was unremarkable. Apart from the autoscopy and irritability, he was functioning normally and was fully aware of the "unrealistic nature of his companion". There was bilateral papilloedema and left homonymous hemianopia but no other neurological abnormalities.

Routine blood and urine examinations were normal apart from a high blood sugar which was controlled with plain insulin. Blood urea, serum creatinine and serum proteins were normal. VDRL was non-reactive and LE cells were negative. EEG, ECG, VEP (full field stimulation) and conventional CT scan showed a normal result. CT scan showed a mixed density irregular lesion with contrast enhancement and surrounding oedema in the right occipital cortex consistent with an infarct.

Autoscopy has been defined as a "complex psycho-sensorial hallucinatory perception of one's own body image projected into the external visual space." Autoscopy is seen in organic and psychiatric autonomic autopsies. By definition, the body image is our concept of the shape, size and mass of our body and its parts. The concept of body schema is not an instinct. As a child grows, there is creation of a tridimensional model of the body and its surroundings. External and internal stimuli contribute to the creation of this model which is dynamic and fluctuates according to circumstances. In addition to the organic parts, certain other attributes are also represented in this model, such as, ego or possessiveness. The conventional body image is not confined to the physical body alone but includes the clothes and objects of daily use.

The body schema concept is a global function of the brain and requires processing at different parts for its expression. Various names and classifications have been suggested for our body schema different in the following classification is based on the tridimensional model. Changes in body schema are classified into those affecting its shape, size, mass and position in space. According to this classification, autoscopy is a disturbance of body schema affecting the shape. Autoscopic experience involving senses other than vision have been described in which autoscopy is accompanied by tactile and auditory characteristics. The image involves the whole body or part of it, but it always includes the face. It may be transparent, opaque or coloured and may show expansion.

Autoscopy may be associated with infections and intoxications, especially chronic alcoholism and typhoid fever; psychoses; epilepsy; migraine, and diffuse and focal cerebral lesions.

There is no satisfactory explanation for this phenomenon. But it is likely that autoscopy is due to abnormalities in a high level system which is responsible for the representation of the body in its environment. Disorganization of this system may result in misinterpretation of the body in space. Although autoscopy does not have any localising value, it may be an early manifestation of a focal cerebral lesion.

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Reoperation related to graft complication following anterior cervical fusion

At our department anterior cervical decompression and fusion is usually performed using the Cloward or the Smith Robinson method; for those requiring spondylitic cervical spinal stenosis we occasionally employ the technique of partial multiple vertebrectomy with the insertion of a block graft, a procedure we refer to as a "Trench". It is our standard practice to obtain a lateral cervical spine radiograph on the first postoperative day. Some surgeons find the radiograph useful to confirm that the correct level has been fused. In addition, the radiograph will provide some information about the degree of retrophyseal swelling due to haematoma. However, we interpret the significance of postoperative cervical radiographs in conjunction with the clinical findings. If the patient is asymptomatic and the radiograph shows a graft abnormality an early re-exploration may be undertaken. In an asymptomatic patient, partial anterior slippage of the graft or minor degree of collapse are accepted and the patient is followed up. If the patient develops symptoms or signs then a late re-exploration may be performed.

Between 1979-89, 822 patients had anterior cervical decompression and fusion at our department. Fifty one of these had further anterior decompression, 27 at a different level and 24 at the previously operated level. In 12 of the latter group, re-exploration was related to clinically significant slippage of the bone graft. The other 12 patients had a re-exploration to remove retained osteophytes or disc fragments. Other patients not counted in this group included one who was re-explored for infection following a cervical disectomy without a fusion and three who had reoperation to evacuate a postoperative haematoma in the neck. Preoperative radiographs were carried out in all cases to identify the correct level before and therefore none of our patients had a fusion at the wrong level. We carried out a retrospective study of the 12 patients that required re-exploration because of a graft complication. The postoperative clinical features and the early check cervical spine radiograph were analysed to find out if the clinical features alone are a reliable predictor of the patients with a graft complication that may necessitate further re-exploration. In this group of patients four had a one level Cloward operation, two had a two level Cloward operation, three had a one level Smith Robinson procedure, two had a three level "Trench" procedure and one had a four level "Trench" procedure.

The graft had collapsed in six cases, slipped anteriorly in five and slipped posteriorly in one case. The early check radiographs showed a serious abnormality which necessitated an urgent re-operation in four cases, each of whom had become asymptomatic at the time of operation. In four other cases, the early radiograph showed a minor abnormality which was initially managed conservatively. Re-exploration was performed between two and four months postoperatively when the complication worsened radiologically and was accompanied by symptoms and signs. The final four cases had a satisfactory early check radiograph and the complication became obvious between one to five months later. They all had clinical symptoms that prompted us to repeat the radiographs.

It was clear that each of the 12 patients had an obvious clinical and radiological feature of the time of re-exploration whether it was early or late. These were: severe brachialgia affecting the asymptomatic side in two cases, severe dysphagia in four cases, recurrence and/or worsen. Abnormalities on the cervical spine radiograph in asymptomatic patient is 1-45%. It is most likely that of the 822 patients that had anterior cervical fusion at our unit, a number of them had a minor degree of graft abnormality on the postoperative radiographic images which were managed conservatively and did not develop symptoms and signs to necessitate a reoperation. Lunsford1 reported a reoperation rate of 4% following anterior cervical disectomy and fusion and this rate was higher than reported by Williams1 which was 5-1%.

In our experience a significant graft abnormality that necessitated a reoperation was always associated with a definite clinical problem. Abnormalities on the cervical spine radiographs in asymptomatic patient could be managed conservatively.2 It is possible therefore to conclude that an early radiograph after a cervical fusion is unnecessary in a patient who is asymptomatic and improving. A radiograph is needed only if the patient complains of dysphagia, persistence or worsening of their radiculopathy or myelopathy. Late recurrence of these symptoms and signs is an indication for further radiographs to assess the condition of the bone graft.

While we acknowledge that there are many reasons for an early postoperative radiograph, we do not feel that these reasons are sufficiently convincing in an asymptomatic patient. A patient who had a wrong level fusion will continue to have symptoms. An experienced spinal surgeon will know the adequacy of the decompression at the end of the operation and is thus able to select the high risk asymptomatic patients who need to be carefully followed up with postoperative radiography. This decision will take into account the pathology (for example, rheumatoid arthritis), the preoperative assessment (for example, cervical instability) and the technical aspect of the operation (for example, osteoporotic bone graft and unsatisfactory positioning).

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