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 also common 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 on the right side, about 30cm 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 expression on 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 on 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 physical examination 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) were normal. CT Scan showed no lesions and the ventricles were normal. MR scan showed no lesions and the ventricles were normal. There was no evidence of a recent haemorrhage. 

The following classification is based on the tridimensional model. Changes in body schema are classified into those affecting its shape, size and mass. 

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 body schema disorders. The following classification is based on the tridimensional model. Changes in body schema are classified into those affecting its shape, size and mass in space. 

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. Misrepresentation 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 disease.

RANI BHASKARAN
ANAND KUMAR
PC KESAVAN KUTTY NAYAR
Department of Neurology, Medical College and Hospital, Trivandrum 695011, Kerala, India 

Correspondence to: Dr Bhaskaran.

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 the same cervical spine 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 retropterygoid swelling due to haematoma. However, we interpret the significance of postoperative cervical radiographs in conjunction with the clinical findings. If the patient is symptomatic 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 considered acceptable 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 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 confirmation of the fusion 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 discotomy 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 require re-exploration. In this group of patients four had a one level Cloward operation, two had a two level Cloward operation, three had 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 was symptomatic at the time of re-operation. In four other cases, the early radiograph showed a minor abnormality which was initially managed conservatively. Re-operation 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 week 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 indication to the time of re-operation 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 worsening of myelopathy in four cases and recurrence of brachialgia in one case. In one other case there was no postoperative improvement and the patient's myelopathy slowly deteriorated. In our study we did not encounter a single case that was re-explored on the basis of a graft abnormality on the plain cervical radiograph alone.

Our rate of re-operation related to a graft complication following anterior cervical fusion was 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 radiographs that were managed conservatively and did not develop symptoms and signs to necessitate a reoperation. Lunsford reported a reoperation rate of 4% following anterior cervical discectomy and fusion and the reoperation rate reported by Williams 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. It is possible therefore to conclude that an early radiograph after a cervical fusion is unnecessary in a patient who is asymptomatic or improving. A radiograph is needed only if the patient complains of dysphagia, persistence or worsening of their radiculopathy or myelopathy. Late recurrence of symptoms or 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 these reasons are sufficient convincing in an asymptomatic patient. A patient who had a wrong level fused will continue to have symptoms. An experienced spinal surgeon will know the adequacy of the fusion by 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 radiographs. 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, osteopenic bone graft and unsatisfactory positioning).


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Isolated palsy of the fourth cranial nerve caused by an intracavernous aneurysm

An interesting case of isolated trochlear palsy due to an intracavernous aneurysm was recently reported by Maurice-Trice, Williams and Harvey. Two points of contention arise in this report: 1) the need for performing carotid angiography early in the course of a patient with an isolated fourth nerve palsy, and 2) has a cause and effect relationship between intracavernous aneurysm and fourth nerve palsy been conclusively shown in this case?

As they acknowledge in their report, isolated trochlear palsies are most commonly caused by trauma and vascular disease. In patients over the age of 50 years, an ischaemic