For many years, drop attacks in elderly patients have been associated with compression of the vertebral artery with brain-stem and cerebellar dysfunction (Schneider and Crosby 1959). It has been suggested that the pathological mechanisms involved are traumatic dissection and compression caused by subluxation, fractures and cervical spondylosis (Sheehan, Bauer and Meyer 1960; Mas et al 1987; Jabre 1991.

We report two elderly subjects with drop attacks which were probably due to instability of a degenerate cervical spine.

**Case 1.** An 85-year-old man had been suffering for ten years from drop attacks which occurred without warning and without loss of consciousness. After each fall, he had confusion, dysarthria and transient tetraparesis lasting for only a few minutes. A cardiovascular cause was suspected because of a heart attack in the past, but several investigations including 24-hour ambulant monitoring failed to show any cardiac arrhythmia even during an attack. At a routine examination, extensor plantar reflexes were found. After one drop attack in which his neck was struck, cervical flexion at examination provoked another fall from which he recovered completely in about a minute. It was uncertain whether earlier drop attacks had been provoked by cervical flexion, but radiographs showed extreme instability at the C5 to C6 level (Fig. 1), especially during flexion. Anterior cervical interbody fusion was performed one week later. At operation it was obvious that the instability had existed for much longer than a few weeks. The vertebral bone was smooth, very hard and contained a cyst. Since his fusion, 3.5 years ago, he has had no drop attacks.

**Case 2.** A 79-year-old man had ten drop attacks over a three-year period, each lasting about a minute and accompanied by transient tetraparesis, dysarthria and dizziness, but no loss of consciousness. He had also had a few episodes of paraesthesiae in his arms, and after his latest fall, some neck pain. Neurological examination was normal except for paresis of the left deltoid muscle and diminished biceps tendon reflexes on both sides. Extensive cardiovascular investiga-
tions, including 24-hour ambulant monitoring, revealed only atrial fibrillation. Radiographs of the cervical spine showed spondylolisthesis at the C5 to C6 level. Anterior cervical interbody fusion was performed at this level; the bony changes seen at operation were similar to those described in case 1. He had no more drop attacks during the last year of his life.

**Discussion.** We describe two elderly men who had drop attacks and cervical spine instability. In both cases the attacks ceased after limited fusion of the cervical spine. We cannot prove that compression of the vertebral artery was the cause, but this seems likely because of the good results of fusion.

Any fracture or dislocation of the cervical spine above the sixth cervical intervertebral foramen may compromise the vertebral arteries, and relative vascular insufficiency may occur in the basilar artery and its branches as well as in the anterior cervical artery. Both our patients were elderly which may explain why the collateral circulation, from the circle of Willis, was not sufficient to compensate for the diminished flow in the vertebral arteries when flexion of the cervical spine led to subluxation.

In elderly subjects with unexplained drop attacks instability of a degenerate cervical spine should be considered since surgery may prevent these symptoms.

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**References**


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**SMITH-PETERSEN VITALLIUM MOULD ARTHROPLASTY: A 45-YEAR FOLLOW-UP**

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In 1938 Smith-Petersen introduced a vitallium mould arthroplasty using a cup made from cobalt-chrome alloy (Smith-Petersen 1948). This allowed movement between the cup and the bone surfaces of the acetabulum and the femoral head and neck. Problems of cup instability led to the development of a ball-on-stick design by the Judet brothers (Judet and Judet 1950). Despite the early failure of most of these, Hettfleisch and Wissenbach (1994) reported a Judet prosthesis which had survived for 40 years. We now report a Smith-Petersen mould arthroplasty which has been in place for 45 years.

**Case report.** In November 1994 a 70-year-old woman complained of pain in her left knee after a fall. Radiographs showed an undisplaced fracture of the lateral condyle of the femur, which was treated conservatively. The patient expressed the hope that we would “do as good a job on my knee as Mr Law did on my hip in 1949.” A radiograph of the pelvis showed a mould arthroplasty of her left hip.

In 1932 she had had an operation for congenital dislocation of the hip. By the age of 25, in 1949, she had severe

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