PAPERS AND ORIGINALS

Space phobia: syndrome or agoraphobic variant?

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Summary

Four elderly women had intense fears of falling when there was no visible support at hand or on seeing space cues while driving. Two patients had cervical spondylosis. The mean age at onset of the fear was 54—thirty years later than that for agoraphobia. Fear of public places and of heights was not prominent, nor was depersonalisation or depression. These "space phobias" might be a hitherto unrecognised syndrome or an unusual variant of agoraphobia. The visuospatial reflexes involved might illuminate the pathogenesis of certain fears.

Introduction

Out of about 450 phobics seen over the past 10 years by one of us (IMM) four, all elderly women, had an unusual fear of open space dependent on visuospatial rather than kinaesthetic or height cues. Their clinical features were a gross exaggeration of some features often found to a mild degree in agoraphobia, and the age of onset was 30 years later than the average in agoraphobia. We have not come across other descriptions of this syndrome, bar the brief reference of Marks.[1]

Case 1

A 49-year-old woman[1] had suddenly felt dizzy a year earlier while running for a bus, and she had had to hold on to a lamp-post for support. After five minutes she felt normal. A few weeks later the feeling returned while crossing the road, and she had to be helped across. A month later, shortly after hearing news of her husband's poor postoperative progress, the feeling recurred outside the gate of her home; she had to hold on to her fence, and a neighbour helped her indoors. Gradually she became unable to walk anywhere unless a wall or furniture was nearby, though she did not actually have to hold these. Removal of visual support more than a foot away induced crying and terror of falling, although she had never fallen. She was calm when sitting or lying. She disliked being alone and had had spells of depression for a year. At the age of 35 she had been an inpatient for 11 weeks with depression. Her work record was stable. As a child she had been afraid of the dark.

She wore a cervical collar for her stiff neck, as she had done for two years. There was constant head titubation, and she looked depressed. She stood steadily with her eyes closed, walked normally with a walking frame, and crawled well on all fours. Gait was not ataxic, and she walked well while within arms' reach of potential support, but she showed extreme anxiety when asked to walk three yards alone. There was nystagmus to the left of central type, and caloric responses showed directional preponderance to the left. A neurological opinion was that this indicated a lesion at or above the level of the vestibular nucleus. Cochlear function was normal, as was cerebrospinal fluid. Electroencephalography showed a mild diffuse non-focal abnormality. Cervical disc spaces were narrowed at C5-6 and C6-7, with anterior osteophyte formation. The mild depression responded to amitriptyline 225 mg daily. Walking did not improve much, but exposure treatment was not tried.

Case 2

A 67-year-old woman was referred because a five-year walking handicap from a mild spastic left hemiparesis attributed to cervical spinal cord damage had recently deteriorated. Ten weeks before attending she had fallen, feared a recurrence, and became unable to walk to the shops a block away, wanting to be supported while walking downstairs or crossing rooms at her home. She could cook while sitting on a stool. Her fear was worse in a strange environment. She felt more tired than before and was mildly gloomy. Neither she nor her family had seen psychiatrists before and she lived in a warm, close-knit family with her husband and children.

When seen she was a spry buoyant old woman with no depression. She needed help walking down the hospital corridor at first but then managed it slowly, unaided, despite a tendency to cling for help to her daughter. After graduated walking exercises at home she walked confidently without support. By six months' follow-up she had again fallen over; she became fearful and walked at home only while touching the walls. The problem continued to three years' follow-up.

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Case 3

This woman was the least handicapped of the four patients. She was referred at the age of 59 with a seven-year history of episodic difficulties in driving if she encountered a wide open road or hollows. These seemed steep, the camber of the road looked like a cliff, and she feared the car would topple over and fall into a ditch. She then felt unable to move forward and handed driving over to her husband. Similar discomfort occurred on very steep slopes, stairs, heights, or bridges. Unlike a height phobic, she rarely avoided heights, and her problem was worst in the car. She was occasionally terrified of walking, when she felt the ground would move. She travelled normally by public transport. For three years she had had tinnitus in the left ear on lying down but denied vertigo, falling sensations, or vomiting. For a few weeks she had been mildly depressed, but she worked normally.

She grew up in a poor, quarrelsome family. When she was 5 she was terrified by a switchback at a funfair and from 13 felt uncomfortable in the gallery of theatres and near other heights. She made a stable marriage and had post-partum depression at the age of 31. Her 28-year-old son disliked heights.

When seen her manner was histrionic and her speech rapid, excessive, and disinhibited. Depression and anxiety were minimal, though her eyes moistened when she talked of her mother's death seven years earlier, and she became anxious discussing her "space problem." Ear, nose, and throat investigations showed no vestibular abnormality. By eight months' follow-up she drove a car with more confidence and did not want treatment.

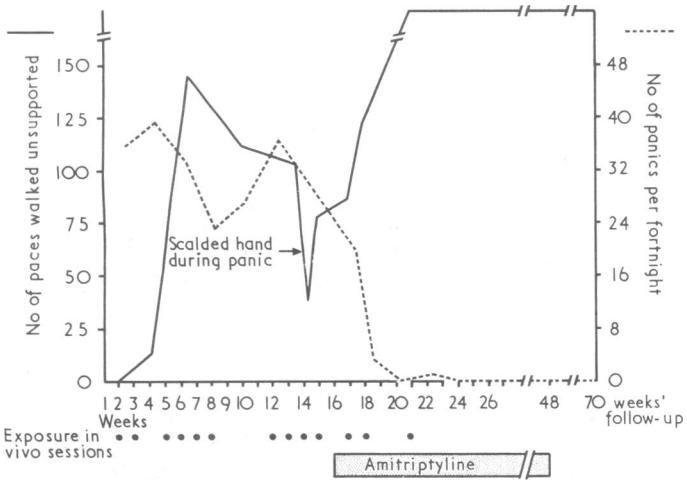
Case 4

This 51-year-old woman was referred for 18 months' difficulty in walking unsupported. She needed only light support when holding someone's arm; momentarily she often felt she might fall and then clutched tightly. She had actually fallen forward twice and hurt herself. She had difficulty especially when stepping off kerbs. In getting off a bus she was reluctant to let go of the platform bar. For six months she had crawled on her knees at home, so that they became calloused. Despite this, she danced vigorously unsupported on a crowded dance floor, but had to be supported if the crowd went away. She felt no discomfort when swung around while dancing. She denied dizziness, spinning, tinnitus, or deafness. She suffered occasional depersonalisation.

For 30 years she had avoided lifts and tube trains and disliked heights. She had had mild transient unsteadiness on her feet five and three years earlier. Over the past two years she had had methyldopa for essential hypertension and phenelzine, tricyclic antidepressants, and three weeks of inpatient admission for depression.

As a child her relationship with her mother was poor. Her work record was stable. She had been married for 30 years and had five children.

She was a dumpy middle-aged woman without depression or anxiety. She had to be gently supported when standing. With eyes closed she could stand unsupported; on opening her eyes she became unsteady, even with the doctor standing a few inches in front of her.



Progress in case 4.

If he stepped backwards slightly she felt immediately she would fall and clutched as she fell forward. This ability to stand with her eyes closed but not with them open could be called "inverted Rombergism." While walking she would panic occasionally and grab out, her pulse rate rising to 150/min. Panics subsided within a few minutes. Galvanic skin resistance (GSR) showed no increase in spontaneous fluctuations at rest. Stereoscopic vision was absent, as it is in 30% of normal people.

After five weeks' physiotherapy, playing ball games in a neurological ward, she again walked unaided but relapsed on discharge. As an outpatient she was treated by graded exposure over 13 half-hour sessions over 21 weeks plus homework to habituate her to the visuospatial cues that elicited her anxiety. She had to increase the number of paces walked unsupported, play ball games, and climb stairs.

Progress was rapid but fragile (see figure). During a panic she grabbed at her kitchen sink and scalded two fingers, but would not let go until help arrived. After 10 sessions amitriptyline 200 mg/day was prescribed to moderate her panics, which disappeared over three weeks. Unsupported walking improved greatly and only three more sessions were needed over the next two months. Improvement continued for a year of follow-up.

Discussion

The hallmark of the "space phobia" shown by these four patients was intense fear evoked by spatial cues, when standing without support close by in three patients and while driving a car in the fourth. Our patients hardly avoided heights, although depth cues affected one woman (case 3). Unlike the fears of outer space and cosmic disaster that are sometimes reported by depressives[1 2] our patients' space fears were dependent on external visuospatial cues.

Two features separate this space phobia from agoraphobia. The first is its much later age of onset. The mean age of onset of the space syndrome was 54 (range 49-67), while the mean age in most series of agoraphobics is 30 years earlier, in the 20s.[1] We have not encountered a single example of severe space phobia in several hundred typical agoraphobics, most of them aged under 40.

The second distinction is the disproportion between the great fear of space and the mild fear of public places in the space syndrome. By contrast, the cardinal feature of agoraphobia is a fear not of open spaces, as is commonly supposed, but of public places, although a mild fear of open spaces sometimes occurs.[1] Unlike most agoraphobics, our four patients were not troubled particularly by public places. One woman's dislike of buses (case 4) was caused by a reluctance to let go of the bar of the bus platform. Another woman's while driving (case 3) was evoked by space cues even in the sitting position. The stimulus control exercised by visuospatial cues was clear in cases 1 and 4. Both patients felt all right standing with their eyes open provided someone stood close up in front of them without actually touching them. As soon as the person stepped back a few inches, however, they experienced a falling sensation and clutched forward. Furthermore, one woman (case 4) was less unsteady with her eyes closed than with her eyes open when no support was obvious nearby. In case 2 a mild hemiparesis potentiated the fear.

Three patients had had mild depression, and one (case 4) had episodic unprovoked panics. At her worst she had panics in bed, although the GSR at rest showed a normal rate of spontaneous fluctuations. The panics disappeared on amitriptyline. This does not argue for depression, as antidepressants can partially reduce phobias and panics without obviously affecting mood.[3-5]

Though graduated walking exercises helped in the two cases in which they were tried (cases 2 and 4), their value remains unclear.

The space syndrome and agoraphobia might be separate conditions that happen to involve similar physiological mechanisms or be two variants of the same disturbance in visuospatial reflexes, with differences due to differing ages of onset. In 1870 Benedikt[6] called agoraphobia "platschwindel," and attributed it to a labyrinthine disorder. Pratt[7] described 12

patients (seven women and five men) with anxiety and vestibular disturbances; their mean age of onset was 28.

Our patients had no detectable labyrinthine disturbance, but two had other organic disturbances. One woman's left hemiparesis, thought to be due to cervical spondylosis, predisposed her to fall, but her reaction to a single fall was much greater than that of most physically handicapped people. Another (case 1) had nystagmus and directional preponderance of caloric responses, indicating a lesion at or above the left vestibular nucleus, and cervical spondylosis. These might point to the source of disturbance in all four patients.

All our patients were elderly. With age might come changes in vestibular reflexes, which might explain why adults like the violent movements of funfairs so much less than children. Our patients might have had some common unknown disturbance of the pathways subserving their visuospatial reflexes, which might be of a vestibular or other kind. This might illuminate the mechanisms that mediate anxiety symptoms like dizziness, forms of agoraphobia, and normal fears that are triggered by specific visuospatial and kinaesthetic cues—for example, fears of a visual cliff, of looking up at a skyscraper, and of the total absence of spatial cues.[1]

Space fears may point to another of several pathogenetic mechanisms in phobic disorders. One is the selective onset of animal phobias in young children before the age of 6,[1] such phobias rarely being acquired de novo in adult life. A second is the selective association of vasovagal fainting with fears of blood and injury rather than with any other kind of phobia.[8] Space fears seem to form a third cluster, found so far only in elderly women.

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Detection of renal anomalies by abdominal palpation in newborn infants

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Summary

In a new technique of palpation for renal anomalies in the newborn one hand supports the infant while the fingers of the other hand support the loin and the thumb explores the abdomen. In a series of 11 000 otherwise normal newborn children superficial palpation detected 11 renal anomalies, and deep palpation led to the discovery of another 42 anomalies. One of two other series in which palpation was performed bimanually gave a similar incidence of renal anomalies (0·5%). Early discovery of an asymptomatic anomaly enables early treatment of the complications that are often found in patients with congenital renal anomalies detected in later life.

Introduction

Careful abdominal palpation at the routine newborn examination can yield an incidence of renal anomalies of 0·5%[1]; early diagnosis is important because of subsequent complications.[2-9] We report a series of such anomalies and the technique of palpation used to detect them.

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Patients and methods

Over 42 months we examined 11 415 infants during the first three days after birth. We did not intend to conclusively palpate the kidneys of every infant examined, though we achieved this in about 95% of the babies (about 11 000 infants).

The kidneys were examined as follows. The infant was supported in a semi-reclining position facing the examiner by a hand behind his shoulders, neck, and occiput (fig 1). Alternatively the abdomen may be relaxed by flexing the lower limbs of the prone infant while lifting the buttocks off the bed (fig 2). The fingers of the opposite hand supported the matching loin posteriorly while the thumb searched that side of the abdomen systematically, at first superficially and then deeply. Deep palpation was performed by applying gentle, steadily increasing pressure subcostally in a posterior and cephalad direction. The thumb was then slid downwards without reducing the posteriorly directed pressure. Usually the upper pole of the kidney was felt trapped between the descending thumb and the posteriorly placed fingers. While mild traction was exerted on the kidney it slipped cephalad under the thumb, and during this passage its shape and extent could be appreciated. The opposite side of the abdomen was examined by changing hands.

The technique was mastered after examining about 20 infants, took 30 seconds, and was facilitated by the hypotonia of the abdominal muscles during the first days after birth.

The urine was examined in most infants with renal anomalies. The possibility of renal trauma raised by other workers[1 10] was evaluated by examining the first urine specimen (midstream) passed after deep palpation of the kidneys of 20 normal male babies.

In all cases the clinical diagnosis was confirmed by intravenous urography or renal scan, or both. Urography was the preferred investigation for clinically enlarged kidneys while renal scan was performed