substantial additional sums from central government funds.

Bringing the kollegiya meeting to a close, Academician Vorobyov apparently assigned a priority rating to three specific policies. The first is reconstructing the pathology and anatomy service from its present "ruined" state; the second is the further development of neonatology as a specialist field; the third entails improving the quality of nursing and midwifery services, especially in small maternity homes and hospitals.

On a related matter, it is interesting that a senior medical academic, Professor Gavryushov, spoke in favour of a radical reorganisation of training for paramedics (in Russian terminology, middle grade medical staff). What Professor Gavryushov had in mind was elevating the standards in existing "schools" for these categories of staff so as to reach the level of higher educational establishments in keeping, as he saw it, with the lead set by the West. The concept of benefits from educational investment also underlay the recommendation by another professor (Shabalov) to raise the level of medical knowledge among the population, beginning with schoolchildren. In a similar vein, he called for publication, at long last, of "the necessary textbooks and reference books on children's diseases and neonatology." Incidentally, given that very many Russian doctors have a reading knowledge of English, it is especially appropriate for British medical schools and publishers to help in this matter. Such action has an immediate practical utility and, potentially, a transformative impact in the longer term.

Achieving significant reductions in morbidity and mortality in Russia depends, to some extent, on obtaining medical supplies, technology, and pharmaceutical products from the West. In this connection I conclude with a quotation from the new minister about distribution of purchases from abroad. He emphasised the need to take into account the interests of regions which were particularly remote from Moscow (and hence less well placed to exercise influence on central decision making). "There are no second class persons," he declared, "and there must be no second class medicine." It is surely evidence of his outstanding calibre that, confronted by a sea of troubles, Academician Vorobyov can affirm such a humane and egalitarian ideal.

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Lesson of the Week

Recurrent aspiration due to Arnold-Chiari type I malformation

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Even in the absence of prominent signs a neurological cause for recurrent aspiration should be considered.

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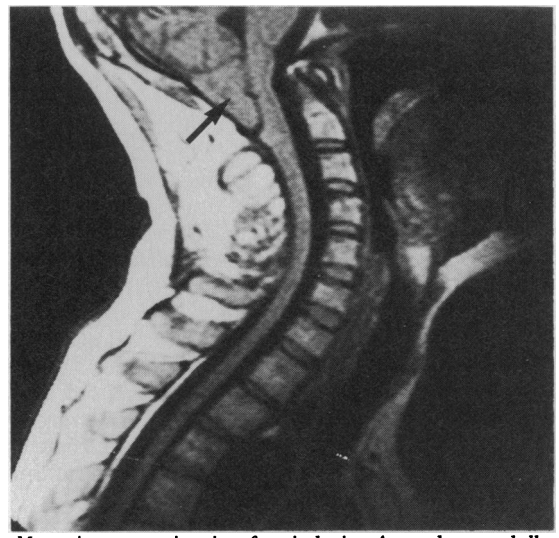
Recurrent aspiration and dysphagia may be the only initial symptoms in an adult presenting with an Arnold Chiari type I malformation.

Case report

A 35 year old man had a history of seropositive rheumatoid arthritis and partial villus atrophy treated with a gluten free diet. In 1981 he was admitted with pleuritic chest pain and a pleural rub, which resolved with antibiotics. In 1987 he presented with fever, rigors, right sided chest pain, and breathlessness after inhaling a pea 48 hours previously; the pea was coughed up in the hospital. Chest x ray films showed some consolidation in the right lower lobe; neurological examination was unremarkable. In 1988 he was admitted with cough, dyspnoea, and pleuritic pain after inhaling a walnut. During fibreoptic bronchoscopy the competence of the larynx was questioned, but review by the otolaryngology consultant found no structural disease of the pharynx and larynx and, in particular, no evidence of rheumatoid involvement of the arytenoids. In 1989 he was referred with wheeze, cough, and breathlessness three weeks after inhaling a piece of apple and a pea. There was partial collapse of the right lower lobe of the lung, and two further bronchoscopies were required to remove pieces of apple. He was now noted to have a reduced "gag" reflex and was referred for a neurological opinion.

Specific inquiry revealed a 10 year history of coughing while eating: the patient often felt that food went "the wrong way," causing cough and shortness of breath. Food would seem to stick in the throat and he had to be "careful" while eating. He would sometimes wake in the night coughing. Examination showed a short neck, low hairline, and midthoracic scoliosis. There were changes of rheumatoid disease in the hands, wrist, and feet. His voice was dysphonic with a "wet-hoarse" quality associated with risk of aspiration.[1] Corneal reflexes were depressed, and the palatal and pharyngeal reflexes were bilaterally absent. The tongue was normal. He had a mild spastic quadriparesis with brisk tendon reflexes, an extensor right plantar response, retained abdominal reflexes, and normal sensation.

Investigations showed a positive rheumatoid factor; results of the Venereal Disease Research Laboratory test were negative. Overnight oximetry and arterial blood gas measurements were normal. He swallowed 150 ml of water in 35 seconds (normal range for age and sex 2·5-15 seconds[2]), during and after which he coughed, suggesting possible aspiration. Indirect laryngoscopy showed a partial right vocal cord paresis. Videofluoroscopy with propyliodone (Dionosil) showed laryngeal penetration by the contrast medium, incomplete closure of the larynx, and some pooling in the valleculae. Computed tomographic myelography and, later, magnetic resonance imaging showed herniation of the cerebellar tonsils through the foramen magnum to the level of the C2 vertebra (figure), a normal fourth ventricle, and some suggestion of compression of the neuraxis at the cervicomedullary junction: no syrinx was seen and there was no hydrocephalus. The patient underwent a foramen magnum decompression with removal of the arch of C1 without complication. Subsequently he noted an improvement in the symptoms of coughing at night and while eating; eight months after surgery he had not had a major episode of aspiration. Repeat videofluoroscopy showed an improved swallow without pooling in the valleculae.



Magnetic resonance imaging of cervical spine. Arrow shows cerebellar tonsils extending to upper border of lamina of second cervical vertebra. There is no evidence of syrinx formation

Comment

Arnold-Chiari malformations are currently described to be of four different types.[3] The type I Arnold-Chiari malformation is characterised by caudal descent of the cerebellar tonsils and may or may not be associated with a syrinx; a degree of medullary descent and buckling of lower medulla may be present. The type II malformation is more extensive and usually associated with meningomyelocele; a syrinx in the medulla or spinal cord may or may not be present. Type III is uncommon and involves caudal displacement of the cerebellum and brain stem into a high cervical or occipital meningocele. Type IV consists of only cerebellar hypoplasia.

The type I malformation presents in adult life with a wide range of features, including raised intracranial pressure, headache, a progressive cerebellar syndrome, syringomyelia, and various signs of involvement of the lower cranial nerves and medulla, including dysphagia.[4,5] In one series of 50 cases three patients complained of dysphagia[4] and in another dysphagia was a subsidiary complaint in one of 40 patients.[5] There is one report[6] (and another in correspondence[7]) of dysphagia as the sole manifestation of adult type I malformation. In our patient laryngeal penetration was largely "silent" and only the secondary effect of aspiration pneumonia was noted by the patient. The case emphasises that a neurological cause for recurrent aspiration should always be considered, even in the absence of prominent signs.

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Leading for Health: responses

Which model for delivering care?

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This is the fifth in a series of articles responding to the questions raised by the BMA's document, "Leading for Health." The document looks well beyond the coming British election and raises questions about health and health care that will be on the agenda of many countries into the next century.

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If someone was asked to design the perfect health care system they might come up with the following ingredients. It would be free at time of need to the whole population. It would have as its foundation a high class system of primary care with a gatekeeper role into the secondary care sector. The secondary care sector would be pyramidal in shape with its base consisting of district general hospitals serving populations of 300 000-500 000. These hospitals would deal with the conditions that such populations would throw up in sufficient volume on a regular basis; they would be backed up by regional centres covering larger populations and dealing with patients with less common conditions, referred by the district general hospitals, so that fewer centres would be needed to attract the number of cases needed to run a cost effective service. The whole system would be centrally planned, using, in particular, access to capital and medical manpower as controls to make sure the strategy of the centre was adhered to and ensure that unplanned developments or expansion did not take place.

Changes in the system

The United Kingdom in theory had such a system—the result of a combined effort of two unlikely allies, Nye Bevan and Enoch Powell. Bevan in 1948 set out the principles of free access and universal coverage. Powell, as minister for health in the early '60s, introduced rational planning of health services and the concept of district general hospitals and regional centres.

Why was such a system changed? Indeed, has it changed as far as the public are concerned? Are the arguments that are polarising health care workers more about the way they wish to work rather than the way the system actually works? For undoubtedly the biggest debate at the present time is about how health care should be delivered. The politicians, including medicopoliticians, may well leap on the more obvious changes, such as NHS trusts and general practitioner fundholders, to make a point, but the fundamental debate concerns the separation of the purchasing and providing roles in health care and the different models of running both of these functions.

Leading for Health: a BMA Agenda for Health[1] does not attempt to answer these questions. Rather, in its section on models of delivering care, after capturing the main variations in four models—one of planned provision and three concerning the purchaser-provider split—it raises the following key questions: "Is it advantageous to separate the purchaser and provider function? Or could the old planned health care system be improved to a point where it worked better than such a system? What are the relative merits of the two systems? If a purchaser-provider system is preferred which [of the three] model[s] would work best? How can community care best be fitted into such a system?"