argues, such a service would be beneficial in improving care for the elderly and children, in relieving the load on hospitals, and in making possible the discharge of chronic invalids immediately after they had completed a course of treatment.

Official reaction

Obviously, an appropriate administrative aegis would need to be found for the scheme, and Svetlana implicitly recognises that the choice may be difficult. She names three government departments, any one of which could be made responsible: they are those dealing with consumer services, the health service, and social security.

As it happens, *Nedelya* dispatched copies of the article to the three departments with a request for their comments, and these were published several months later.² The Ministry of Social Security for the Russian Republic recorded a view that the Ministry of Consumer Services should extend the range of its programmes to include the support of old people living with their families. The USSR Health Ministry advocated increasing the number of homes for the elderly, which come under Social Security, and, in particular, the number of facilities for temporary stay. It also wished to see an expansion of non-medical domiciliary services by the Consumer Services Ministry. But a

spokesman for the latter is quoted as pointing out that staff in his field lack the specialised medical knowledge and training required for rendering professional help when needed. He proposed that qualified staff from health service establishments should provide such a service. The Health Ministry then riposted by stating: "It would be appropriate to increase the number of Red Cross and Red Crescent home care nurses."

Government practice in the Soviet Union generally displays a high degree of bureaucratic rigidity, and perhaps the statements reported above do not set some new record for departmental buck passing. Nevertheless, demands for a positive response from the state are most likely to increase in intensity with the passage of time; in 1970 people over the age of 60 accounted for 12% of the population, and, according to a recent estimate,³ by the year 2000 the figure will have risen to 17%. With these figures it seems reasonable to conclude that the Soviet government will eventually be forced to concede the case for something akin to the "service of compassion" proposed in *Nedelya*.

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² Gladish S. V poiskakh sestri miloserdiya. *Nedelya* 1982;25:8-9.

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Lesson of the Week

Allergy to aminophylline

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Theophylline preparations are being used with increasing frequency in the treatment of bronchial asthma. Most unwanted effects occur as a result of excessively high blood concentrations and include nausea, vomiting, tachycardia, and convulsions. We report on a rare, but important, problem associated with aminophylline treatment—namely, hypersensitivity to ethylene diamine.

Case report

A 61 year old woman with a 20 year history of asthma was admitted because of increasing shortness of breath over 72 hours which had not responded to inhaled salbutamol. Forty eight hours previously her general practitioner had prescribed additional tablets (which proved subsequently to be a slow release formulation of aminophylline 225 mg twice daily (Phyllocontin)).

Patients taking aminophylline who develop an acute dermatitis or have an exacerbation of a previous skin condition should be suspected of allergy to ethylene diamine

Within 12 hours of starting this treatment she developed a widespread, itchy erythematous rash. At the time of admission she showed features of acute bronchial asthma with a pulse of 90/minute, intercostal recession, a respiratory rate of 24/minute, and a peak flow rate of 150 l/minute. She had a fever (37.8°C) and an erythematous maculopapular rash affecting the face, trunk, arms, and legs with some excoriation.

Her asthma was treated with a combination of systemic corticosteroids, inhaled salbutamol, and a continuous intravenous infusion of aminophylline in a dose of 250 mg six hourly. Her rash was treated symptomatically with chlorpheniramine.

By the next morning her asthma was greatly improved but the rash had increased in severity. After aminophylline had been stopped the rash improved within 12 hours and resolved completely by 48 hours. Subsequent re-exposure to aminophylline given intravenously to a total dose of 250 mg resulted in reappearance of the rash by eight hours and resolution within 26

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hours. Later, skin patch tests showed positive reactions to 1% aminophylline and ethylene diamine both in aqueous solution and paraffin but not to theophylline.

Comments

Aminophylline is the ethylene diamine salt of theophylline. This complex increases the solubility of theophylline and enables it to be used parenterally as well as orally. The development of a rash is almost invariably a form of hypersensitivity reaction to the ethylene diamine component¹: only rarely can theophylline be implicated in such reactions.² Contact dermatitis induced by ethylene diamine was noted first on the hands and faces of pharmacists who prepared aminophylline suppositories,³ but it occurs most frequently during industrial exposure (the rubber industry or preparation of insecticide and waxes) or with the use of certain creams, particularly antibacterial and antifungal preparations. In addition, cross sensitivity occurs with substances present in antihistamine creams such as promethazine (Phenergan). Although we were unable to determine any industrial or medicinal exposure in our patient, the latter seems likely as she had a 30 year history of skin problems affecting the right leg and these have been treated with various local preparations.

The systemic administration of compounds containing

ethylene diamine in previously sensitised patients may cause rashes, fever, lymphadenopathy, and even bronchospasm. The rash may take various forms but does not usually occur until 18 to 24 hours after exposure and thus is more characteristic of a cell mediated hypersensitivity than one involving IgE.^{2,4} Although rare, this condition should be suspected in all patients receiving aminophylline who develop either acute dermatitis or an exacerbation of a previous dermatological condition. The diagnosis is confirmed by 48 hour skin patch testing with solutions of 1% theophylline and 1% ethylene diamine. Aminophylline should then be avoided, but most patients may be treated with anhydrous theophylline preparations as these do not contain ethylene diamine.

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MATERIA NON MEDICA

Inca city

An invitation to lecture in Venezuela gave the chance for a pipedream to become reality. The reality began to lose credibility as an emergency landing in Bordeaux forced us to spend three unwanted nights, first in Madrid and then in Caracas, before arriving two days late in Lima. However, from then on, dreams and reality fused.

Worries of delays, feelings of fright as the pilot swung us around Andean peaks to descend into the beautiful basin of Cuzco, were cast aside as we stepped down from the plane knowing we were only four hours' train journey from our goal. The effects of altitude made themselves felt within six hours of our arrival, the first symptoms being a splitting frontal headache and nausea; however, pisco sour (brandy, lemon, and egg white), aspirin, and bed, preferably in that order, cure many things.

Our call at 6 00 am was precise. (The Latin Americans call precise timing "British time," otherwise "Mañana time" prevails.) The taxi ride to the hubbub of Cuzco station took us between amazing Inca walls—each granite square made to fit its neighbour precisely, with no fudging issue of mortar between. The train left on time (half an hour late) and took us very quickly by a series of zigzags to a point high above Cuzco. We then began the descent from about 13 000 feet, every change of direction presenting us with wonderful new views: precipitous mountains, with Inca terracing, plunging into tree clad valleys, and soon our first glimpse of the tumbling waters of the Urumbamba river, which travels for mile upon mile before reaching the Amazon.

We followed this river, sacred to the Incas, to our destination, Macchu Picchu—some say the lost city of the Incas. The station is 2000 feet below the city and strong nerves were needed for the bus ride up through a series of steep curves which took us to the ruins in eight kilometres of tacking road.

Then at last, our first real sight of Macchu Picchu, dominated by the holy mountain of Huayna Picchu. The Incas, some 400-500 years ago, had chosen a spectacular position to build their city. The walls and houses, partly restored during the last seventy years since Hiram Bingham made his monumental discovery, show the magnitude of the Incas' craft—some of the hand carved granite blocks weighing 10 tons.

After a night in a small hotel beside the city ruins, we were able to appreciate the exquisite beauty of the place: we saw the clouds floating around the mountains like giant aprons; we could see the

thickening vegetation in the Urumbamba valley far below; but, above all, we could see Macchu Picchu, surely a wonder of the world, and a city we shall never forget.—A J ROBERTS, Prestwood, Bucks.

One hundred and twenty years

"A rose red city, half as old as time," said J W Burgon of Jordanian Petra; and such might easily be the tourist's thought when the setting sun picks out the sandstone of our castle and the village stretching from its feet. Perhaps not as old as Petra, but St Cuthbert on his way to Holy Island crossed the Tweed here at its upper ford, known by the Saxons as Ubbanford, and his successors in the see of Lindisfarne, evicted by the Viking raids, rested Cuthbert's body here early in their flight, which eventually ended at what is now Durham cathedral. The village church, already the burial place of St Ceowulph, King of Northumbria, thus received its additional dedication to Cuthbert. In the wake of the Norman Conquest Ubbanford became Norham, the north hamlet of the bishops of Durham, who were responsible for the castle and the defences of the eastern marches of the Scottish border for some five centuries.

But how have the inhabitants of this old settlement fared? Visitors often comment about how stable the population must be. Access to the census returns for the parish in 1851, when the population was 1033, and in 1971, when it was 503, gave an opportunity to study the demographic changes. In 1851 one sixth of the population was aged under 5; in 1971 one sixth was over 70; the median age in 1851 was 24, in 1971 it was 47; but the oldest man was 82 and the oldest woman 93 in both 1851 and 1971.

Superficially, village life and population seem to be unchanging, without much alteration in blood stock in rural communities. This parish seems to fit the mould: in 1851 some 55% of the population was born in the parish, and in 1971 the figure was 40%. But children have no say in their place of birth and when adults only were considered, 18% were born in the parish in 1851 and 21% in 1971: that is to say, indigenous inhabitants were outnumbered four to one in both 1851 and 1971.

Few rural parishes in England, even those in the borderlands, may have known the genetic mixture of areas around seaports and, latterly, airports, but genetic dissemination is evidently no new thing and apparently not restricted to urban areas. Is this one of Britain's strengths?—G A C BINNIE, Berwick upon Tweed.