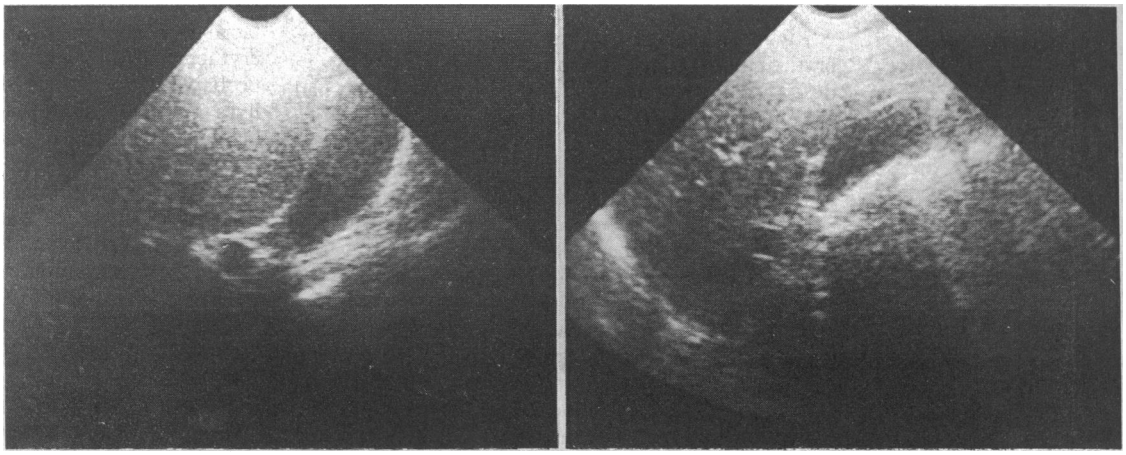

Ultrasound scans of a patient showing (left) a normal gall bladder before treatment and (right) multiple tiny gall stones after 12 months' treatment. These were mobile on real time scans and showed acoustic shadowing

there have been only isolated reports of gall stones occurring during octreotide treatment.[1] Gall bladder contraction and cholecystokinin secretion in response to food are almost abolished by its administration[4] and may contribute to stone formation. The high incidence of gall stones might have been due to the higher doses of the drug which we used. None of our patients had symptoms from the gall stones, and the correct management of the stones remains problematical.[5] While further prospective studies of the incidence of gall stones during octreotide treatment are awaited we recommend the use of the smallest effective dose of octreotide.

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Lyme disease facial palsy: differentiation from Bell's palsy

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Lyme disease is caused by the spirochaete *Borrelia burgdorferi* and is transmitted to humans by the tick *Ixodes ricinus*. Infection may affect the skin, nervous system, heart, and joints, and one presentation is of a facial nerve palsy that resembles Bell's palsy. There are, however, differences that are important to recognise so that a palsy caused by infection with *B burgdorferi* may be treated early and appropriately, which may lead to a more rapid and complete recovery.

I describe nine patients who presented with facial nerve palsies between February 1986 and August 1988. Eight of these had Lyme disease and one had Bell's palsy.

Clinical features, treatment, and time taken to recover in eight patients with facial nerve palsies

Case No	Sex	Age (years)	Clinical features	Treatment with tetracycline	Serological result (IgM, IgG)	Recovery time (months)
1	M	62	Moderate swelling and erythema of face that preceded facial palsy. Erythema of tympanic membrane. Generally unwell	Oral tetracycline, started late in illness	Positive	6
2	F	8	Mild swelling and erythema of face that preceded facial palsy. Mildly unwell	None	Positive	5
3	F	10	Moderate induration and mild erythema of face that preceded facial palsy. Mildly unwell	None	Positive	30
4	F	48	Mild facial swelling, facial palsy, generally unwell	Oral tetracycline started late in illness	Positive	2
5	F	68	Mild induration and erythema of face that preceded facial palsy. Mildly unwell	None	Positive	6
6	M	60	Moderate erythema and induration of trunk, meningitis, sciatica, facial palsy. Generally unwell	None	Positive	3
7	F	20	Mild induration and erythema of face that preceded facial palsy. Mildly unwell	Oral tetracycline started late in illness	Positive	1
8	M	30	Facial palsy	None	Negative	3

Case reports

A woman aged 32 presented with painless erythema and swelling of the left side of her face. This became worse over the next 24 hours, resulting in considerable induration of her upper lip, pinna, and periorbital tissues. She developed a headache, pain down the side of her neck, and paraesthesia of her left hand. Erythema of the left tympanic membrane and an early lower motor neurone facial nerve palsy were found on examination. Lyme disease was diagnosed, and she was treated with oral tetracycline for one week. She made a quick and full recovery. Serological testing with western blotting to detect IgM and IgG[1] later confirmed the diagnosis.

The table summarises the clinical data on the eight other patients. All except one (case 5) presented in the summer, and all lived near land inhabited by deer (hosts for the ticks) or had recently walked in the New Forest. Only three patients, however, had evidence of having been bitten by a tick.

Four patients received treatment with oral tetracycline, but I found that unless this was started within 48 hours after the onset of the palsy it made no difference to the time taken to recover. All patients, with or without treatment, recovered eventually. Bell's palsy was diagnosed in case 8 because the facial palsy was not associated with facial induration and swelling, and serological tests did not show antibodies to *B burgdorferi*.

Comment

An early feature of Lyme disease is the distinctive erythema chronicum migrans. Bateman and Lawton described nine patients with Lyme disease who had unilateral or bilateral facial nerve palsies, and in three of these the palsy was associated with this skin lesion.[2] The induration and erythema seen in my patients may have been those of erythema chronicum migrans.

Seven of the patients described here developed swelling and erythema of the face of varying severity that started before the facial nerve palsy. The appearances resembled those of cellulitis, but the affected skin was not painful or tender to touch. In addition, erythema of the tympanic membrane on the affected side was noted in two of these patients. These clinical features have not been reported in Bell's palsy.

I recommend that a presumptive diagnosis of Lyme disease should be made in any patient presenting with a facial nerve palsy that is associated with induration and erythema of the face. The diagnosis becomes more probable if the patient presents in the summer and lives in, or has visited, an area in which the vector may be found. Treatment with an antibiotic should be started as soon as Lyme disease is suspected, rather than be delayed until the diagnosis has been confirmed by serological tests, because prompt treatment may hasten recovery from what would otherwise be a disfiguring complaint lasting several months.

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Cholesterol screening programmes: How much potential benefit?

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Despite many guidelines set out by several committees programmes for screening the cholesterol concentrations of the population and subsequent treatment of people with high concentrations remain controversial. Recommendations range from no screening to screening all adults before age 30.[1] The definition of high risk groups for selective screening varies and has not been examined systematically.[1,2] Failure to distinguish between relative and absolute risks and benefits in some guidelines may have resulted in inappropriate recommendations.

We quantified the potential benefits of a programme for screening the population of England and Wales in terms of preventing deaths from coronary heart disease.

Methods

We used data from the Office of Population Censuses and Surveys for England and Wales in 1985 that were stratified by sex and age[3] to calculate the expected numbers of deaths from coronary heart disease over five years. We assumed that they had been screened and that drugs had been prescribed over five years for all people with concentrations $\geq 6{\cdot}5$ mmol/l, and that compliance was 100%. We used prevalences of cholesterol concentrations $\geq 6{\cdot}5$ mmol/l obtained from the Scottish Monica survey[4] and relative risks approximated from prospective studies[5] to estimate the number of deaths from coronary heart disease over five years in people with cholesterol concentrations $\geq 6{\cdot}5$ mmol/l. We then calculated the number of deaths that would have been prevented if all people with such concentrations had been treated, assuming a 20% reduction in mortality from coronary heart disease in all age and sex groups.

We then derived prevalences of cholesterol concentrations $\geq 6{\cdot}5$ mmol/l specific to age and sex assuming that the mean cholesterol concentration in the population was decreased by 0·5 mmol/l,[3] and, assuming that mortality was the same in people with each cholesterol concentration, estimated the potential reduction in numbers of deaths from coronary heart disease with these prevalences.

Results and Comment

Even assuming a fixed relative risk for high cholesterol concentrations and a fixed relative benefit for treatment in people in all age and sex groups, the absolute benefit of screening for individual people and the community varies enormously. For individual people the absolute benefit depends on the incidence of coronary heart disease, for which age and sex are important determinants. To prevent one death from coronary heart disease within five years estimates of the numbers of people who would have to be screened over the five years and of those who would subsequently be treated ranged from 137 320 and 20 600 respectively for

Estimates of potential benefits of cholesterol screening and subsequent treatment for preventing deaths from coronary heart disease in population of England and Wales in 1985[4] according to age and sex.

	Age (years)			
	25-34	35-44	45-54	55-64
Total population (1000s):				
Men	3 497·1	3 377·2	2 749·3	2 671·9
Women	3 433·0	3 349·2	2 735·3	2 727·4
Cumulative total No of deaths after five years:				
Men	1 660	11 098	41 085	104 968
Women	305	1 683	9 225	38 936
Prevalence (%) of cholesterol $\geq 6{\cdot}5$ mmol/l†:				
Men	20	35	40	45
Women	15	20	50	70
No with cholesterol $\geq 6{\cdot}5$ mmol/l (1000s):				
Men	699·4	1 182·0	1 099·7	1 202·4
Women	515·0	669·4	1 367·7	1 909·2
Relative risk of death (cholesterol $\geq 6{\cdot}5$ mmol/l *v* $< 6{\cdot}5$ mmol/l):				
Men	4·0	3·0	2·0	1·5
Women	4·0	3·0	2·0	1·5
No of deaths in people with cholesterol $\geq 6{\cdot}5$ mmol/l:				
Men	830	6 855	23 477	57 840
Women	120	721	6 150	30 284
No of deaths prevented within five years*:				
Men	166	1 371	4 695	11 568
Women	25	144	1 230	6 057
No screened to prevent one death within five years:				
Men	21 067	2 463	586	231
Women	137 320	23 244	2 224	450
No treated for five years to prevent one death within five years:				
Men	4 213	862	234	104
Women	20 600	4 649	1 112	315
Deaths prevented within five years as % of total deaths in each age and sex group†:				
Men	10	12	11	11
Women	8	9	13	16
Prevalence (%) of cholesterol $\geq 6{\cdot}5$ mmol/l if concentrations of population lowered by 0·5 mmol/l‡:				
Men	10	20	25	25
Women	5	10	35	55
No with cholesterol $\geq 6{\cdot}5$ mmol/l (1000)‡:				
Men	349·7	675·4	687·3	668·0
Women	171·7	334·7	957·4	1 500·1
No of deaths over five years in people with cholesterol $\geq 6{\cdot}5$ mmol/l‡:				
Men	415	3 917	14 672	32 133
Women	84	360	4 305	23 970
Reduction in No of deaths over five years with lower prevalence of cholesterol $\geq 6{\cdot}5$ mmol/l‡:				
Men	415	2 938	8 805	25 707
Women	36	361	1 845	6 314
Reduction of deaths over five years as % of total deaths in each age-sex group with lower prevalence of cholesterol $\geq 6{\cdot}5$ mmol/l‡:				
Men	25	26	21	24
Women	12	21	20	16

* If treatment of those with cholesterol $\geq 6{\cdot}5$ mmol/l reduces mortality by 20%.
† Assuming 100% compliance.
‡According to prevalences if cholesterol concentration of population lowered by 0·5 mol/l