normal and, of the remaining five, two had rubella infection (one stillborn) as a complicating factor. I shall report the outcome of the remaining two cases.

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¹ Brazin SA, Simlovitch JW, Johnson WT. *Obstet Gynecol* 1979;53:175.

² Ross CAC, et al. *J R Coll Gen Pract* 1975;25:29-32.

³ Hope-Simpson RE. *J R Coll Gen Pract* 1975;25:571-6.

Acute gingivitis as atypical infectious mononucleosis

SIR,—The report of two cases of atypical infectious mononucleosis in elderly people by Dr M W McKendrick and others (20 October, p 970) prompts me to describe a single case presenting symptoms which I think have not been previously recorded.

A 65-year-old man noted painful gingivitis affecting the interdental papilla between the first and second right upper incisors. The following day the gingivitis had spread to the greater part of the upper gum. Oral phenoxymethylpenicillin had no effect. On the third day a lymph node below the angle of the jaw was enlarged and tender on each side. A low fever (37.2°C) persisted for two weeks. Despite some malaise the man continued at work. On the fourth day a blood film showed atypical mononuclear cells characteristic of infectious mononucleosis. The total white cell count was $9.5 \times 10^9/l$. The Paul-Bunnell test was positive. The erythrocyte sedimentation rate was 25 mm in the first hour. Gingival swelling, tenderness, and a tendency to bleed persisted for two weeks from the onset, and swelling alone lasted for about two months. The lymph nodes were no longer tender after the first week, but they have remained enlarged and firm till now, three years later.

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Smoking and mortality of male doctors

SIR,—I read Mr P N Lee's paper (15 December, p 1538) with great interest. In the paper the author presented the observed and the expected number of deaths from nine causes had doctors shown the same improvement as men in social classes I and II as a whole, and came to the conclusion that in 1970-2 there were 34 fewer deaths among doctors which could be attributed to reduced cigarette smoking. However, if the observed number of deaths among doctors is compared

with the expected number of deaths among men in social classes I and II then one cannot help reaching the conclusions that (a) the number of deaths due to coronary heart disease and stroke has decreased considerably but that (b) the number of deaths due to stress-related diseases has increased.

There is no evidence to support the assumption that giving up smoking or reduction in the level of smoking results in increase in the stress-related diseases (on the contrary, the standardised mortality ratio (SMR) for stress-related diseases is lower for social classes I and II for the period 1970-2 than for 1949-53); so it is essential to estimate the number of deaths among doctors for the period 1970-2 if they had maintained the same level of smoking relative to social classes I and II. Hence the same SMR values for coronary heart disease (126), stroke (131), and lung cancer (61) will be used for the period 1970-2. It may be pointed out that to reduce or to give up smoking is a voluntary decision and therefore within the direct control of an individual. On the other hand, most of the factors affecting stress-related diseases are outside the control of an individual. So in order to make a realistic estimate for the deaths caused by stress-related diseases the SMR values of 1970-2 must be used.

From the accompanying table it is evident that by reducing smoking more effectively there were 56 fewer deaths among doctors. However, if the overall reduction in deaths among doctors due to all other factors is considered, on the basis of SMR values for the same period, then there is no significant difference in the overall mortality ratio (SMR₁ is 100.4 and SMR₂ is 100.4).

As more and more men belonging to social classes I and II are giving up smoking and caring more for their health these days and doctors, on the other hand, are to come under more stress due to the stringent financial cuts in the NHS, it is high time that doctors become aware of the dangers they are likely to face. It is imperative that they take effective steps to reduce their own stress without the help of drugs. Perhaps a bit of meditation and regular practice of yoga may be the simplest preventive therapy.

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SIR,—My analysis of the mortality of male doctors (15 December, p 1538) has provoked comments not only in your columns but also in other medical journals and in the lay media, some of which suggest that the emphasis of my conclusions may have been

Numbers of deaths and death rates from "stress-related diseases" in doctors aged under 65 over the period 1951-71

	Non-smokers	Ex-cigarette smokers	Continuing cigarette smokers
No of deaths	57	48	183
Death rate per 100 000 per year	64	60	100

misinterpreted; and Sir Richard Doll and Dr Richard Peto have suggested that I should clarify the points I was making.

My main conclusion was that "the benefits of giving up smoking may not be so great as has commonly been assumed," on the basis of the relatively small improvement in mortality in doctors aged under 65 compared with men in classes I and II over the period 1951-71 when a greater proportion of doctors than of men in classes I and II gave up smoking. A Adelstein (personal communication) has pointed out that classes I and II included Army officers in 1949-53 but not in 1970-72; but even after excluding them from the calculations doctors' overall mortality trends (standardised mortality ratio (SMR) changing from 89 to 81) were only about 2% better than the control group (SMR changing from 87 to 81). Approximate calculations based on the data of Doll and Peto¹ on the relative mortality of smokers, ex-smokers, and non-smokers suggest that if all the difference in mortality between these three groups were actually due to their smoking, one would expect doctors' mortality trends to be about 8% better than the control group. Even after allowing for the fact that Doll and Peto's estimates of smoking habits, based on only 67% of male doctors, may have over represented those smokers more likely to give up, the discrepancy appears to remain. When one further takes into account that for coronary heart disease, the disease contributing most to doctors' actual relative improvement in overall mortality compared with classes I and II, a similar relative improvement could also be seen over the period 1931-51, before doctors gave up smoking, the discrepancy becomes more marked.

Two explanations are possible for this discrepancy. One is that some of the differences seen in the overall mortality of smokers and ex-smokers is due to differences in factors other than their smoking habits. Evidence supporting this is given by Seltzer.² The second is that trends in factors other than smoking may have affected the mortality of doctors and the control group differently over the period considered. The relative contribution of each explanation to the discrepancy is open to doubt but the possibility that the first is important, especially in relation to coronary heart disease, should not be overlooked.

The second main point of my paper was to point out and discuss the fact that for certain diseases (suicide, cirrhosis of the liver, and accidents, poisonings, etc) which might be considered stress related the mortality trend of doctors was relatively worse than that of classes I and II over the period 1951-71. Several possible explanations were considered in my paper, one of which was that giving up smoking may have contributed in part to the worsening trend if smoking had acted to reduce stress. At first sight, the data in the table above may seem to rule out this hypothesis. However, the situation is complex. It seems basically more plausible that "stress causes smoking" than that "smoking causes stress." If this is the case and if it is only the less stressed smokers who feel able to give up, one may observe more stress-related disease in continuing smokers than in those who have given up even if giving up smoking is actually associated with increased stress.

Dr Lynn T Kozlowski and others (9 February, p 400) touch on some of the highly complex literature on smoking and stress. Though they quote evidence that smoking may directly reduce stress and that cigarette deprivation may induce stress, both consistent with the hypothesis described above, they suggest that in some cases smoking

The observed and expected number of deaths if doctors had maintained the same level of smoking relative to men in social classes I and II

Cause of death	1949-53 SMR ₁ *	1970-72 SMR ₂ *	1970-72		
			Observed	SMR	Expected
Coronary heart disease	126	97	261	126	340
Stroke	131	95	44	131	60
Lung cancer	61	48	31	61	39
Other malignant tumours	87	93	106	93	114
Bronchitis	48	60	13	60	22
Cirrhosis of liver	149	227	14	227	6
Suicide	192	356	55	356	15
Accidents, poisoning, etc.	88	175	60	175	34
All other causes	84	89	81	89	91
Total	101	100.4	665	92	721

*SMR₁ = SMR in doctors for 1949-53/SMR in classes I and II for 1949-53.
SMR₂ = SMR in doctors for 1970-72/SMR in classes I and II for 1970-72.