

PostScript

LETTER

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Inhaling volcanic ash on Montserrat

I have only recently had an opportunity to see the *OEM* online abstract of this paper,¹ but I did see the unpublished original version in the Health Department archives while I was Chief Medical Officer on Montserrat from late 1998 to late 2000.

My first comment is that this survey of schoolchildren was carried out in February 1998, and yet it has only now been published in a scientific journal more than five years later. This is of some relevance since the highlights of the paper published in the *BMJ* on 12 April 2003² comment that since the time of the first eruption in 1995 the children "have had an excess of respiratory illness" and that "few were receiving recommended appropriate treatment". This statement is misleading. It may well have been true up until 1998 but it is certainly not true for the period beyond that time. The reality of children more heavily exposed to heavy ash falls experiencing more wheeze and asthma than those less exposed has been convincingly shown in the paper. However, most of the children living on Montserrat since 1998 have been in the north of the island and only intermittently exposed to relatively lighter falls of ash.

My own clinical experience and that of visiting paediatricians is that the prevalence of asthma and asthma like symptoms is no higher than in other parts of the Caribbean and may even be lower. A survey carried out by the health department of resident children in June 2000³ found the prevalence of "wheeze ever" in all schoolchildren to be 22.7% (compared with 27.7% in all children

in the 1998 survey). This survey also found the prevalence of "asthma ever" to be 13.8% compared with 9.8% in the 1998 survey. The 2000 survey found no association with exposure to higher ash levels, but it must be recognised that in 2000 very few children were exposed to anything like the levels experienced between 1995 and 1998. The treatment that has been given to children experiencing asthma has been along conventional lines as recommended by paediatricians in the United Kingdom.

Further evidence of the lack of any continuing serious adverse effects of volcanic ash on respiratory health comes from a one year survey of all clinic attendances by all age groups on Montserrat during 1999. This survey found no correlation between weekly clinic attendances for respiratory symptoms and episodes of ash venting or increased ground ash levels. A further study by the Institute of Occupational Health in Edinburgh⁴ carried out in October 2000 found a prevalence of asthma of 8.1% and of chronic bronchitis of 6.7% in a group of 421 workers on Montserrat occupationally exposed to high levels of ash. A subsequent survey of 440 Montserratians relocated to the United Kingdom⁵ found a prevalence of 14.2% for asthma and 14.0% for chronic bronchitis.

My second and most important comment is that by far the most important adverse effects of the volcanic eruptions relate to the social and economic disruption and its effect on the life and health of the people. In my paper in the *West Indian Medical Journal*⁶ I have described a change in population demographics with a fall in the productive group and a rise in more dependent people, loss of older female family providers, more elderly people becoming dependant on the state, increases in anxiety and depression in the elderly, changes in the diet and increasing obesity in children, and increases in domestic violence.

One of my concerns while on Montserrat was that most of the academic input following the disaster was put into vulcanology and respiratory health. Some valuable findings have come out of this work but no formal academic input was made into other more serious matters, especially on the health side.

Fortunately the outstanding health problems of Montserrat have been addressed by the health department with the help of the UK Department for International Development and the Pan American Health Organisation, but much remains to be done. The importance of this was dramatically emphasised with the reports of a massive dome collapse on 12/13 July, and ash venting which uncharacteristically smothered the inhabited north of the island. Such a big

eruption could easily demoralise some of those not already traumatised. However, we can expect the resilience of the remaining population of around 4500 people to carry them through yet again in spite of all the social and economic disruption which has had a far more profound influence on their health than the purely physical effect of the ash.

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References

- 1 Forbes L, Jarvis DL, Potts J, et al. Volcanic ash and respiratory symptoms in children on the island of Montserrat, British West Indies. *J Occup Environ Med* 2003;60:207-11.
- 2 Anon. BMJ family highlights. Inhaling volcanic ash effects breathing. *BMJ* 2003;326:785.
- 3 Avery JG. The aftermath of a disaster. Recovery following the volcanic eruptions on Montserrat. *West Indian Med J* 2003;52:131-5.
- 4 Cowie HA, Searl A, Ritchie PJ, et al. A health survey of workers on the Island of Montserrat. Research Report TM/02/02. Edinburgh: Institute of Occupational Medicine, 2002.
- 5 Cowie HA, Searl A, Ritchie PJ, et al. A health survey of Montserratians relocated to the United Kingdom. Research Report TM 01/07. Edinburgh: Institute of Occupational Medicine, 2001.

NOTICE

Society of Occupational Medicine, Scottish Group, Spring Meeting, 19 March 2004

The Spring Meeting for the Society of Occupational Medicine, "Clinicians in crisis—looking at fitness to practise and support mechanisms", will be held on Friday, 19 March 2004, at the Royal College of Physicians and Surgeons, 242 St Vincent Street, Glasgow.

The keynote address, "Fitness to practise procedure" will be given by Sir Graeme Catto, President of the GMC.

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