Combating onchocerciasis in Africa after 2002: the place of vector control

Since the launching of the African Programme for Onchocerciasis Control (APOC) at the end of 1995, all 30 African countries affected by endemic onchocerciasis have been involved in a merciless fight against the disease. Already, onchocerciasis is no longer a public-health problem or an obstacle to socio-economic development in the 11 countries monitored by the Onchocerciasis Control Programme in West Africa (OCP; Molyneux, 1995). This should soon be the case in the 19 APOC countries (Dadzie, 1997), as an efficient and self-sustainable system of community-directed treatment with Mectizan® (ivermectin, MSD) is established.

In West Africa and most of the APOC countries, Simulium damnosum s.l. is the only species responsible for transmission of *Onchocerca volvulus*. In some foci in East remaining OCP countries and for the A countries, chemotherapy with Mectizan® now the main tool used against onchocerciasis is used both to treat and prevent the clinical manifestations of the disease, particularly onchocercal blindness and skin lesions (Chippaux et al., 1995).

If all goes to plan, 31 December 2002 will be a landmark date in the history of blinding disease control in Africa. This is the date set for phasing out all OCP activities. In fact, current, combined strategy of chemotherapy and vector control should help to clear all the basins treated by the OCP before this deadline. In addition, most of the vector-elimination projects necessary in APOC countries have already been identified. They should start before the end of this century and most of them are likely to be completed.
longer wish to become involved in long-term, vertical programmes of the OCP type, no matter how successful such programmes might be.

The only vector-control operations likely to survive after 2002 will be those needed for 'mopping up' in areas previously covered by OCP or APOC operations. In some basins in the OCP area, such as the Dienkoa basin in Burkina Faso, control of transmission was delayed (Hougard et al., 1997) and insecticide spraying may have to be continued for some months or even 2-3 years after 2002, until epidemiological results are totally satisfactory. This should not be a major problem in Dienkoa, as the aim there will be to continue the low-cost, land-based treatment which is already managed by local health services. It may be more of a problem in the tributaries of the Oti river in northern Togo, as all the human, material and financial resources needed would have to be found, larviciding could not be carried out from the ground, and the amounts of insecticides to be sprayed would have to be fairly large because of the hydrological pattern of the local rivers.

To conclude, whatever the number and significance of the larviciding operations conducted after 2002, they will play a significant role in onchocerciasis control compared with that of chemotherapy. Mectizan likely to be the main control agent but microfilaricidal drugs or even filaricidal drugs may increase in significance, especially in the OCP area. As larviciding by the OCP will be a surge in the number of blackflies and in the number of bites in communities which have become unaccustomed to a nuisance.
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