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DEAD MEN TELL NO TALES

(An account of a recent Smallpox outbreak in Afghanistan)

by

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Introduction

For more than a year, all outbreaks in Afghanistan have been directly or indirectly traced to importations from endemic areas in Pakistan. Through June, 1973, only 14 cases had been identified: one outbreak of 13 cases following an importation in March and a single importation in April without secondary cases.

The evident success of the eradication programme and the infrequent occurrence of importations led to an unfortunate sense of complacency among programme staff - many of whom felt that a nil incidence had been achieved and that a certain relaxation of effort was possible. The calm was shattered by the receipt on 8 July of a report of an outbreak in NES Ilaqadari (sub-district) in Kandahar Province.

To assist in the investigation, the Central team left immediately for Kandahar and on 9 July met with the Zonal Smallpox Programme Director in Kandahar.

The outbreak

The Zonal Director reported that he had received the report of an outbreak on 3 July from the Provincial Medical Officer. He was informed that on 28 June the Commandant of Police at NES, hearing of some unusual deaths in a nearby kuchi (nomad) camp, had telephoned this information to police headquarters in Kandahar. The Provincial Medical Officer was immediately notified by the police and that same day he sent a laboratory technician to investigate. The technician returned on 30 June and reported that there was a smallpox outbreak among the kuchies. However, instead of telephoning the nearby zonal smallpox office, the Provincial Medical Officer wrote a letter to the Zonal Director on 2 July which was received at the Zonal office on 3 July.

The Zonal Director promptly despatched the Surveillance Team to investigate the outbreak and to take appropriate containment action if the diagnosis was confirmed. On 4 July the Zonal Director followed with the Senior Sanitarian. The diagnosis was confirmed; four active cases were seen and particulars of five previous fatal cases were obtained. It was noted that a local malaria surveillance agent had visited the camp a few days earlier, vaccinated a few people and then departed without reporting the outbreak to anyone. Also, it transpired that a variolator residing in the centre of the Ilaqadari was called in about 2 July, and having obtained material from one of the current cases, had variolated ten persons including some children. (The Zonal Director later contacted the Administrative Officer of the Ilaqadari in order to trace the variolator who had by then departed for another province).

The Surveillance team vaccinated the contacts in the camp as well as the population in seven nearby villages and several other groups of nomads who were in the area. Altogether

2300 vaccinations were performed. The team then visited all the other villages in the Ilaqadari to warn people of the outbreak and to search for other possible cases.

During this visit, conflicting information was given by various informants regarding the dates of onset of the various cases and also about the movements of the index case. The information made little sense epidemiologically. On 10 July, the central team along with the zonal staff again visited the infected camp to carry out further investigations.

The camp consisted of seven tents in which 45 kuchies. all related to each other, lived in intimate contact. Of these, 11 persons living in five tents were affected by smallpox. The age and sex distribution, and the vaccination and variolation status of the cases are shown below:

Age	Male	Female	Total Cases	Previously Variolated	Previously Vaccinated	Deaths
1	1	0	1	0	0	0
1-4	0	0	0	0	0	0
5-14	0	1	1	0	0	0
15+	4	5	9	1 (childhood)	0	5
Total	5	6	11	1	0	5

Nine of the 11 cases were more than 15 years of age and all cases except one were among the unprotected. One adult who had been variolated in childhood exhibited the modified discrete type of smallpox. Most puzzling was the unusual age distribution of cases and the fact that there were so many susceptibles as NES Ilaqadari had been systematically vaccinated by a team only three months previously. Enquiries revealed, however, that while the vaccination teams had operated in the area, this band of kuchies was in the process of moving from one location to another. The adults had gone ahead to reconnoitre a new site; some women and all of the children had been left behind and these had been contacted and vaccinated. Many adults were thus missed. It had also been a common experience of the vaccinators that the adult kuchies often refused vaccination saying that it is not necessary for them since they were either variolated in childhood or too old to get smallpox.

The surprisingly high case fatality ratio (five out of 11 dying) was felt to be due in part to exposure to intense heat with little protection as well as secondary bacterial infection due to environmental contamination.

Source of infection

Identification of the source of infection proved to be the greatest problem. The camp leader said that his brother, Mohd Ghani, a 35 year old male, was the first case and that he had gone to Kandahar City for about six days about two months previously and three days after his return from that visit developed fever and rash to which he succumbed a week later. After a period of time, which could not be definitely ascertained from the leader, five other adults developed the disease of which four died subsequently. However, by questioning other men in the camp and by appraising the stage of the disease of current cases, the sequence of

the various cases and their approximate dates of onset could be determined.

The problem was the first case. There was no known focus of infection in the local area nor had there been any in Kandahar City. From other kuchies in the area, however, it was learned that a large number of kuchies belonging to the infected tribe had moved into Baluchistan late in 1972 because of the drought in Afghanistan, and that some members of this particular band frequently visited their relatives there. The leader was again questioned and he then volunteered that one, Aziz Khan, a 19 year old male, had gone to Quetta (Baluchistan) for medical treatment of a heart ailment, but the leader insisted that Mohd Ghani did not go with him and that Mohd Ghani had died before the return of Aziz Khan from Quetta.

Aziz Khan was then contacted and questioned separately. He stated that Mohd Ghani had travelled with him, but only as far as Kandahar City, and that three days after his return from Quetta he had been with Mohd Ghani when he died. He produced an admission and discharge slip from the Quetta hospital showing he had been in that hospital from 14-24 May. This document helped determine that the date of departure of Mohd Ghani from the camp was 11 May. But did Mohd Ghani go to Quetta? The leader was questioned yet again but he persisted in saying that Mohd Ghani had only gone as far as Kandahar City and had stayed there for about 5 to 6 days with his uncle, Abdul Mohamed, a Music Master attached to the Mayor's office.

After checking on the containment activity, we returned to Kandahar City and the next day contacted Abdul Mohamed, who told us all. Mohd Ghani, his nephew, had accompanied Aziz Khan all the way to Quetta to look after him. He had visited Aziz Khan in Quetta hospital every day and had spent the nights with his relatives in Khel-e-nau, an Afghan kuchi camp in Quetta Cantonment. After Aziz Khan was discharged from the hospital on 24 May, he returned before Aziz Khan and three days afterwards developed smallpox and died. Both on his way out and back, Mohd Ghani had met his uncle at Kandahar City but did not stop. Thus, there seemed to be little question but that Mohd Ghani had contracted the infection either in the Quetta Hospital or at Khel-e-nau near Quetta City, having been there for more than 15 days and having developed the disease three days after his return.

From the Smallpox Surveillance Report, it was known that 24 cases had been reported from Quetta during the week 18-22 May but a cable was sent to request specific confirmation of the source. The sequence of cases and events are shown in Figure 1.

Thus, by patient and persistant enquiry and frequent cross checking of information, the source of infection could be determined. The original reluctance on the part of the kuchies to provide this information was probably based on the fear that if it became known that someone had gone to Pakistan for some undefined purpose, he would be suspected of being involved in smuggling.

Repeat visits will be made to the infected area to ensure effectiveness of the containment activity and to search for any possible further spread of the disease.

Conclusions:

This outbreak illustrates several points:

(1) The threat of importation into Afghanistan continues and will prevail until Pakistan also achieves a NIL status for smallpox. Nomads can play a significant role in introducing the disease.

(2) Reporting needs to be further strengthened and streamlined.

(3) The danger of variolation still exists. So long as even a single variolator is in possession of potent smallpox material, re-establishment of the disease could occur.

(4) At this stage of the programme, every outbreak must be investigated in great detail and the source of infection determined. Containment vaccination must be 100 per cent.

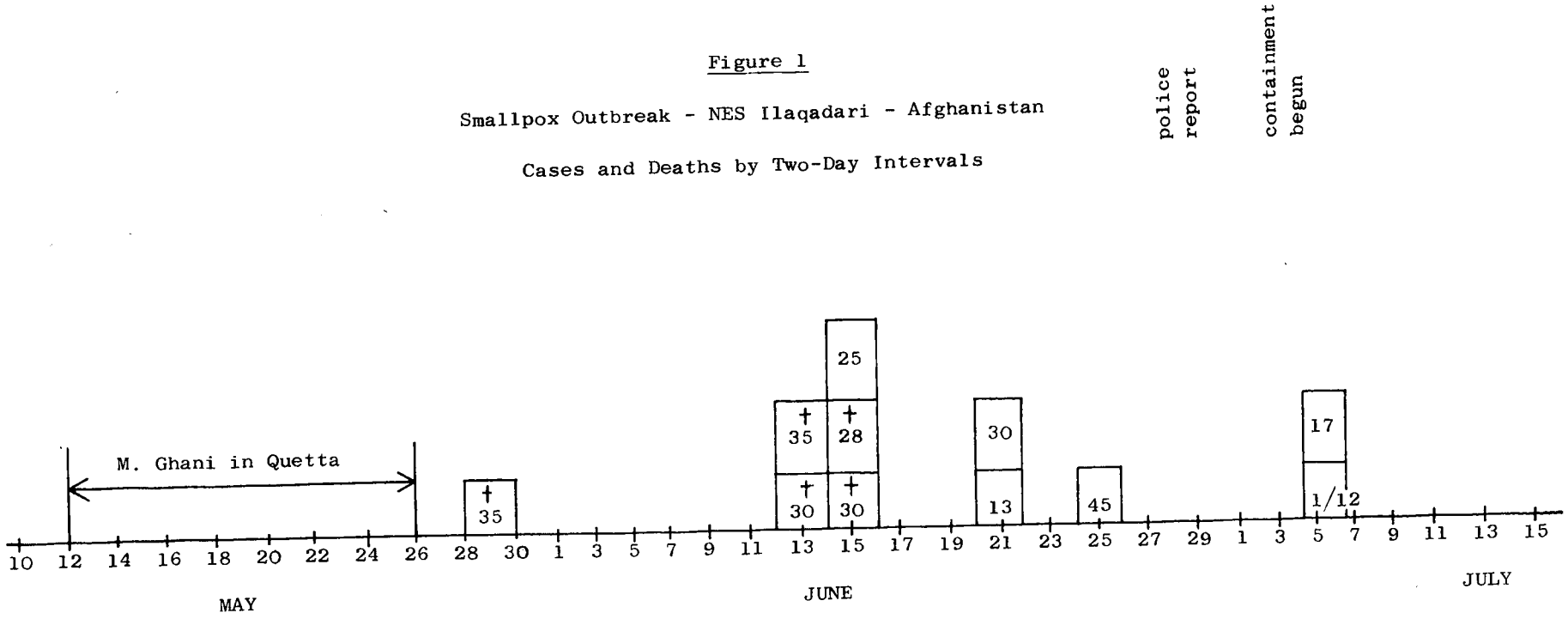
Countries like Afghanistan, though no longer endemic, must continue to be vigilant and permit no let-up in any of the activities of the programme till world-wide eradication is achieved.

While trying to obtain information regarding the source of infection in any outbreak, one may be told many false-hoods for one reason or another. But an epidemiologist, like a detective, must be able to sift the evidence and determine the true facts by persistent enquiry of diverse sources. There is a saying that dead men tell no tales, but it must be remembered that sometimes live ones do!

Figure 1

Smallpox Outbreak - NES Ilaqadari - Afghanistan

Cases and Deaths by Two-Day Intervals



45 Age of Patient

† Patient Died