## Research Note

## The Antiquity of Chronic Ear Disease in Australian Aboriginal Children

This Research Note is stimulated by the published comment that 'ear disease among Aboriginal persons has been recorded since William Dampier's first visit in 1699,'<sup>1</sup> and seeks to explore the historical evidence for this statement. A previous review of the medical literature by the author failed to find any definite evidence that chronic *otitis media* was prevalent at the time of white settlement in 1788.<sup>2</sup>

Chronic ear disease is a common problem among Aboriginal children in Australia, where some of the highest rates in the world have been recorded. The condition was not documented in the medical literature in any detail until a number of surveys highlighted the issue in the late 1960s and early 1970s. Research into the health of Aboriginal schoolchildren in Queensland, constitutes the first survey to document prevalence of the disease accurately.<sup>3</sup> An earlier survey of a small community in Western Australia (WA) had also found a high prevalence.<sup>4</sup> Subsequently, there have been many studies confirming prevalence rates ranging from 15 to 90 percent, depending on ages, definitions and locality.<sup>5</sup>

The first reference in the medical literature to *otitis media* among Aboriginal children appears to be in 1957, when the WA Deputy Commissioner of Public Health, W.S. Davidson, commented that: 'several children had chronic suppurative *otitis media* for which they were receiving treatment at mission hospitals.'<sup>6</sup> Elphinstone found no evidence of the condition among forty-eight children examined by him between 1958 and 1967, part of a larger study of 111 Aboriginal persons living in remote areas ofWA's Western Desert region who had no previous contact with 'Europeans.'<sup>7</sup> In a personal communication with the author, Elphinstone did mention, however, difficulties in obtaining a good auriscopic examination in the field.<sup>8</sup>

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The reference to William Dampier's observations that appears in Guerin and McConnell<sup>9</sup> is in an earlier paper by Sunderman and Dyer<sup>10</sup> in which they state that 'ear disease is a major problem among Aboriginal persons and has been recorded since William Dampier's visit to our shores in 1699.'11 Unfortunately, no reference is given and close perusal of Dampier's journals reveals no mention of ear disease or discharging ears. In A New Voyage around the World, the journal of his first 1687-88 voyage, Dampier describes in great detail the facial features of Aboriginal people around the present Shark Bay area with whom he had brief contact, but does not mention ears.<sup>12</sup> Dampier's second voyage took place in 1699-1700 with him landing first at 'Shark's Bay' (sic) on 6 August 1699. His journal again meticulously describes the features of 'natives,' in this case those he encountered during a skirmish while the seamen were looking for water. The fact that he does not mention ears suggests that there was little to remark about them.<sup>13</sup> Why then do Sunderman and Dver make their reference?

A 1985 paper by Willis discusses trachoma as a possible cause for the high prevalence of ear disease among Aboriginal Australians, stating that the condition affects about 50 percent of the Aboriginal population and 'appears to have been introduced by seamen from the northern islands many centuries ago; it was certainly noted by early explorers, such as William Dampier."<sup>4</sup> While Sunderman and Dyer's paper was published just before Willis', it is plausible that they mistakenly got their information from this source. One would have to make the comment that while there is some evidence for trachoma in Dampier's descriptions, it is by no means certain.<sup>15</sup> Also, in a letter to the Medical Journal of Australia, Bulteau quotes George Worgan, Surgeon of the Sirius, who describes Aboriginal men, women and children in some detail, including the prevalence of a nasal discharge, but does not mention ears.<sup>16</sup> There seems little doubt then that infected eves and nasal discharge were common in the Aboriginal people seen by Dampier and Worgan but neither mention discharging ears.

The two most reputable early medical writers on health problems of Aboriginal people are J. Burton Cleland and Herbert Basedow. Both published extensive articles on various health problems in the *Journal of Tropical Medicine and Hygiene*— Cleland in 1928 and Basedow in 1932.<sup>17</sup> Basedow makes no mention of ear disease while Cleland has a brief section on the topic quoting Foelsche<sup>18</sup> mentioning in 1882 'gatherings in the ears from which the natives suffer a great deal in the wet season.'<sup>19</sup> Basedow also quotes a Mr Read of Point Macleay, South Australia, as stating 'otorrhoea was a disease of the natives.'<sup>20</sup> Foelsche's statement appears to be the source used by both Curr, and Cleland, in their descriptions of the use of roasted red Eugenia juice to treat 'gatherings in the ears.'<sup>21</sup>

Charles Darwin visited Sydney Cove in 1836. Given his reputation as a keen observer of nature, his descriptions of Aboriginal people are of interest. These are recorded in his *Voyage of the Beagle* (1845), and include his observation of the few Aboriginal people he met on his way from Sydney to Bathurst, leading him to conclude that 'the number of Aborigines is rapidly decreasing'—but not noting any ear disease.<sup>22</sup>

In conclusion, the evidence for chronic ear disease being an important problem in Aboriginal Australians prior to settlement in 1788 is scanty. None of the early writers quoted mention much about the children, among whom the condition would be common if it were prevalent at the time. William Dampier did not record any information on ear disease in the Aboriginal people with whom he had contact, and the first recorded mention of ear disease in any form in the Australian Aboriginal people was by Foelsche in 1882, with Curr adding a recommendation for treatment four years later.<sup>23</sup> The first mention of chronic suppurative *otitis media* in Aboriginal children was by Davidson in 1957.<sup>24</sup>

The strongest evidence against the disease being prevalent in 1788 is that provided by Elphinstone.<sup>25</sup> The children he examined coming out of the Western Desert practiced their traditional lifestyle, which mitigated against risk factors for chronic ear disease such as poor nutrition, poor hygiene, overcrowding, exposure to cigarette smoke and lack of breast feeding. Indeed, traditional foods have been proven to be healthy, overcrowding can hardly occur in the open desert, tobacco was not available, and breast-feeding was necessary for survival. It is the author's opinion that the problem was not prevalent in 1788 but that it

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has arisen from the dramatic changes in lifestyle undergone by Aboriginal people since that date.

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4. Dennis A. Clements, "Otitis Media and Hearing Loss in a Small Aboriginal Community," Medical Journal of Australia, vol. 1 (1968): 665-7.

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10. Jack Sunderman and Haydn Dyer, "Chronic Ear Disease in Australian Aborigines," Medical Journal of Australia, vol. 140 (1984): 708.

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12. William Dampier, A Voyage to New Holland-The English Voyage of Discovery to the South Seas in 1699 (Gloucester, UK: Alan Sutton, 1981), 120-2.

13. Ibid., 218.

14. Rory Willis, "Otitis Media and the Australian Aboriginal," American Journal of Otology, vol. 6 (1985), 317.

15. Dampier, 218.

16. Volney Bulteau, "Ear Health in Aborigines: Early observations," Medical Journal of Australia, vol. 11 (1980): 576.

17. J. Burton Cleland, "Disease amongst the Australian Aborigines: Diseases of the Ear," *Journal of Tropical Medicine and Hygiene*, vol. 31 (1928): 232; Herbert Basedow, "Diseases of the Australian Aborigines," *Journal of Tropical Medicine and Hygiene*, vol. 35 (1932): 177-85.

18. P. Foelsche, "Notes of the Aborigines of North Australia," Transactions and Proceedings of the Royal Society of South Australia, vol. 5 (1882): 1-18.

19. Cleland, "Disease amongst the Australian Aborigines."

20. Ibid.

21. E. M. Curr, 1886, *The Australian Race*, Vol. 1 (Melbourne, Vic.: John Farnes Government Printer, 1886), 256; Cleland, "Disease Amongst the Australian Aborigines," 232.

22. Charles Darwin, *The Voyage of the Beagle* (Heron Books Facsimile Edition, originally published in 1845), 434.

23. Foelsche, "Notes of the Aborigines of North Australia"; Curt, The Australian Race.

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25. Elphinstone, The Health of Aboriginal Australians and Personal Communication.