Observations

The abscess cavity size was determined by ultrasonography. Abscesses more than 60 mL capacity were observed in 24%, 20% and 12% of patients in groups A, B and C, respectively. *Staphylococcus aureus* was the only organism isolated in 80% of the specimens and was uniformly sensitive to cefazolin. No growth was observed in the other specimens. Transient bacteraemia was seen in three patients of group C only in whom *S. aureus* could be isolated in the blood culture. The drain was irrigated if it became blocked but led to secondary infection in 20%, 12%, and 4% patients in groups A, B and C, respectively.

Wound infection in the form of frank purulent discharge was observed in 16%, 12% and 24% of patients in groups A, B and C, respectively. Such wounds were laid open and allowed to heal by secondary intention. Excluding cases with infection, healing was achieved in an average of 7.3, 6.9 and 7.4 days in the three groups, respectively. The recurrence rates observed were almost similar 8%, 12% and 10% in group A, B and C, respectively.

Discussion

The standard surgical teaching has always been that antibiotics are worthless in the treatment of abscesses for two reasons: (1) prior to incision, the cavity wall prevents access of the antibiotic to the pathogenic organisms; and (2) following free drainage the normal bacterial action of blood ensures sterilization of cavity[2]. The present study endeavoured to define the role of antibiotics in lactational breast abscesses.

The wound infection rate in the present series is comparable to that of Knight's series[3]. By applying 't' test for the three groups it can be concluded that the antibiotic did not affect the incidence of wound infection. Bacteraemia was observed in three patients of group 'C' only. Although no harmful effects of bacteraemia occurred in this study, septicaemia has been reported to occur as a sequala to bacteraemia in a study where no antibiotic was used[4]. No bacteraemia was observed in any patient who was given only one preoperative dose of antibiotic – this was similar to results of a study by Blick *et al.*[4]. To prevent the bacteraemia one preoperative dose of antibiotic is as good as giving multiple doses of antibiotics.

Stewart *et al.*[5] compared the role of antibiotics *vis-à-vis* healing time and could secure healing in a mean of 7 days without use of any antibiotic. In the present study also the difference in the mean healing time in the three groups was found to be statistically insignificant. Recurrences were observed in 8%, 12% and 10% of patients in groups A, B and C, respectively. We therefore conclude that antibiotics did not materially change the outcome in terms of wound infection, healing time, bacteraemia and recurrences.

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Health worker perceptions of how being observed influences their practices during consultations with ill children

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Introduction

As illustrated in a recent article in *Tropical Doctor*[1], a common method for evaluating health worker performance in developing countries involves observing them during patient consultations. The presence of the observer, however, is a conspicuous change from the usual setting; thus, it is important when interpreting results from studies using this method to understand the effect that observation has on health workers. We asked a group of health workers who had been observed during consultations how they thought the presence of an observer influenced their performance.

Method and results

In 1999, 109 health workers were observed during patient consultations in a survey of the quality of care provided to sick children at outpatient health facilities in Ouémé Department, Benin[2]. In early 2000, we invited health workers to one of six meetings to discuss the survey's findings. At the beginning of each meeting, before any results were presented, participants signed their name on an attendance sheet. Participants were then given a 1-page anonymous questionnaire asking whether they had been observed during the 1999 survey and two multiple choice questions about how they thought the presence of the observer influenced their performance on the day of the survey (Table 1).

Of the 58 participants who indicated they had been observed during the 1999 survey, most reported that the presence of the observer did not influence the time they

Table 1 Health worker perceptions of how being observed influences their practices during consultations with ill children

Question and responses	No. (%) (n=58)	95% confidence interval
Did you feel the presence of the observer affected the amount of time you spent in consultation with ill children on the day of the survey?		
Consultations were much longer than usual	2 (3.4)	0.4–11.9
Consultations were a little longer than usual	23 (39.7)	27.0–53.4
No change compared to usual practice	32 (55.2)	41.5–68.3
Consultations were a little shorter than usual	1 (1.7)	0–9.2
Consultations were much shorter than usual	0 (0)	0–6.2
How did you feel the presence of the observer affected the way you treated ill children on the day of the survey?		
Performance was much better than usual	9 (15.5)	7.3–27.4
Performance was a little better than usual	17 (29.3)	18.1–42.7
No change compared to usual practice	31 (53.4)	39.9–66.7
Performance was a little worse than usual	1 (1.7)	0–9.2
Performance was much worse than usual	0 (0)	0–6.2

spent in consultations or increased it slightly (94.9%). Similarly, most participants said the observer caused their performance to be a little better than or the same as usual (82.7%) (see Table 1).

By matching the names of meeting participants with those of health workers included in the 1999 survey, it was possible to examine differences between health workers included in the 1999 survey who did or did not attend the meetings. Meeting attendees were more likely to be male (72% versus 64%) and to be a nurse (81% versus 53%). The median age, 40 years, and the median consultation duration, 10 minutes, was the same for both those who attended the meeting and those who did not.

Conclusion

We found that health workers generally believed that the presence of an observer had little or no influence on their practices, and that if it did it was almost always in the direction of performing a little better than usual. These results agree with other studies that have documented the 'Hawthorne effect' – i.e. subjects perform better than usual when being studied[3,4]. Our data, however, have important limitations: (1) a 4–8 month delay between the 1999 survey and the assessment of observer influence; (2) potential selection bias; and (3) no objective measure of health worker performance in the absence of an observer.

If other studies confirm that performance is generally the same or somewhat improved when health workers are observed, then evaluations using observers may overestimate the quality of care. If an evaluation reveals poor performance, the bias introduced by the presence of the observer probably would not change the evaluation's conclusions. However, if an evaluation shows high performance, it would be difficult to know whether the care routinely delivered, in the absence of an observer, is equally high. To fill this gap, methods for evaluating health worker performance that do not use conspicuous observation, such as using simulated clients[5] or record reviews, may be needed.

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