

The Causes of Delayed Diagnosis of Cancer of the Cervix in Zimbabwe

by

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SUMMARY

Patients in Africa often present with advanced malignancy. Fifty patients with cancer of the cervix were interviewed to determine factors contributing to the late diagnosis of cancer. The average patient delay in seeking advice was 8.1 months. The main reason for this delay was failure to realize the abnormal nature of the symptoms. Delay on the part of health workers was 4.6 months. Traditional healers were not a significant cause of delay. Primary health care clinics are the level at which population education and earlier medical diagnosis may be feasible.

INTRODUCTION

Studies of malignancy in Zimbabwe^{1, 2, 3} and other parts of Africa⁴ emphasize that patients present with advanced disease. Possible reasons for this include economic factors, the distances involved, lack of medical personnel, patient delay⁵ and reliance on traditional remedies.⁶ We could find no study (Medline computer search) which had investigated the reasons for this late presentation of malignancy in Africa. Advanced cancer can often be considered a failure of prevention or detection. A detailed analysis of the reasons for this delayed diagnosis is necessary to plan any intervention. Cancer of the cervix was studied because it is the commonest malignancy seen in Harare Teaching Hospitals⁷ and long-term survival is influenced by the stage of disease when treatment is started.⁸ A local ethical committee approved the study.

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METHODS

Patients with histologically proven cancer of the cervix in the two central referral hospitals in Harare were asked to participate in the study. Staging information was extracted from the case notes and one of us (J.M.) interviewed all consenting patients. The interview was flexibly structured but included the presenting symptoms, the duration of symptoms, each patient's sequential attempts to obtain help from any health worker (traditional healers, elders, primary health care clinics, private general practitioners and hospitals) and the duration of delay at each. The reasons for patient delay were sought but if no direct answer was volunteered, specific enquiries were made to determine whether distance, poverty, fear or complacency played a part. The start of specific therapy at the central hospital was taken as the end point. Delay at the central hospital was taken as the time between the arrival of the patient and initiation of therapy. At the end of the interview, each patient was questioned about specific gynaecological symptoms preceding the stated time of onset of the symptoms which had prompted attempts to seek advice.

RESULTS

One patient refused to participate. The age of the remaining 50 patients ranged from 23 to 70 years, with an average of 45 years. The clinical staging of the disease was Stage I (4 patients), Stage II (21 patients), Stage III (18 patients) and Stage IV (7 patients). The commonest presenting symptoms were inter-menstrual bleeding (74%), lower abdominal pain (68%), vaginal discharge (34%), dysuria (12%) and post-coital bleeding (4%). No patient was asymptomatic. The duration of symptoms prior to the patient seeking advice from any source is shown in Table I in which the duration of symptoms as initially volunteered by the patient is contrasted with the duration of abnormal gynaecological symptoms as elicited by the interviewer. The duration of symptoms was significantly longer ($p < 0.01$ chi-squared test) if a careful history was taken. The average patient delay prior to seeking advice was 4.8 months (patient's history) and 8.1 months (interviewer's questioning). The duration of delay did not show a uniform trend with stage of disease. Patients first consulted primary care clinics most commonly (23 patients) followed by

peripheral hospitals (10 patients), traditional healers (8 patients), central hospitals (4 patients), general practitioners (3 patients), faith healers (1 patient) and family or elders (1 patient). Patients often attended more than one hospital or clinic and the total average delay attributable to each level of referral was calculated and is shown in Table II. Delay at a particular level was taken as the time (months) between the first attendance at that level and the first attendance at the next level in the referral pathway. The average total delay due to all health workers was 4.6 months (Stage I cancer - 4.6 months; Stage II - 5.4 months; Stage III - 4.8 months; and Stage IV - 1.7 months). Health workers were not always entirely responsible for these delays as 9 patients (18%) defaulted along the referral pathway.

DISCUSSION

All our patients were symptomatic and their average delay in responding to symptoms was 8.1 months. More advanced cancer was not associated with greater patient delay; in fact the duration of symptoms was shortest and diagnosed quickest in patients with Stage IV disease. This could be attributed to poor recall by sicker patients or perhaps a more fulminant disease. In a similar study in the United States, Fruchter and colleagues⁹ found that 18% of patients with cancer of the cervix had been asymptomatic and were investigated for an abnormal screening Pap smear. The average patient delay was 5.5 months but more advanced disease was generally associated with longer patient delay. They also found that the duration of symptoms initially volunteered was often an underestimate and that the duration of symptoms in patients with very advanced disease was often remarkably short. These factors perhaps explain why the duration of patients' symptoms (6 months) in studies of gastric cancer in Zimbabwe^{9, 10} and Britain¹² appeared similar although many more Zimbabwean patients had advanced disease. A careful interview is necessary to accurately date the duration of symptoms. Reasons for patient delay are similar in Zimbabwe and the United States.⁹ The majority of our patients (70%) did not recognize their initial symptoms as being possible signs of cancer. Fear, poverty and unavailability of medical services were seldom cited as causes of delay. Most patients (80%) first sought help from orthodox medical services, only 16% visited traditional healers first. These data are biased by the fact that interviews were conducted in hospital and often through an

interpreter; however similar results were reported by Chavanduka¹³ in a study not biased in this way.

The total delay attributed to health workers was 4.6 months. Delays attributed to each tier of the health service (Table II) show that even after arrival at a central hospital, almost a month elapsed before specific therapy was begun. The delay at peripheral hospitals was partly because the results of biopsies were awaited prior to referring patients to a central hospital. Primary care clinics saw 86% of patients at some time during their illness and the orthodox medical services contributed the longest delay. One of the questions we asked of patients was where, and by whom, the first vaginal examination had been performed. The first vaginal examination was most commonly performed by a doctor at peripheral hospital. Traditional healers did not cause significant delay and cannot be blamed for the late diagnosis of cancer of the cervix in Zimbabwe. Nine patients contributed some of the delay attributed to the health workers by defaulting. Radiotherapy had already been started in the two patients who defaulted from a central hospital and never returned. At peripheral hospitals, patients defaulting did not return for biopsy results or delayed in attending appointments at central hospitals.

In the United States¹³ delay between the first medical visit and histological diagnosis is only 2.1 months. Delay has decreased in recent years and earlier figures from the United States (1945 - 1960) are similar to those presently found in Zimbabwe.

The late presentation of patients with cancer of the cervix, and perhaps malignancies generally, in Zimbabwe can be attributed partially to patient delay and partially to delays in the diagnostic process. The main reason for the patient delay is failure to appreciate the potential seriousness of symptoms. Extensive screening programmes are often not feasible in the developing world but through health education earlier diagnosis may be possible. Most of our patients had attended a primary health care clinic and vaginal examination including a speculum examination with a direct view of the cervix in every woman with gynaecological symptoms might aid earlier diagnosis. The primary care clinic is a level at which intervention could be achieved by educating staff about the symptoms and signs of early cancer and the necessary examination techniques as well as raising the awareness of the population as regards the prevention and early detection of cancer.

TABLE I

The Duration of Symptoms Prior to
Patients Seeking Advice
(n = 50)

Duration of delay (months)	Patients' volunteered history (% patients)	After interviewer's specific questioning (% patients)
Less than 1	28	10
1 - 3	34	16
4 - 6	18	36
More than 6	20	38

TABLE II

The Mean Delay at Each Stage
of the Referral Pathway
(n = 50)

Source of advice	% patients seen	Delay (months)
Central hospital	100	0.9
Peripheral hospital	72	1.7
Primary care clinic	86	2.8
General practitioner	18	2.0
Traditional healer	32	1.0
Faith healer	6	4.0
Family/elders	2	1.0

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